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**RENEWAL PART B PERMIT APPLICATION
VOLUME 1, SECTION E**

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E GROUNDWATER MONITORING

The following information regarding the protection of groundwater is submitted in response to the provisions of 35 IAC 703.185 (Groundwater Protection Information) of the Illinois EPA Hazardous Waste Rules. This section summarizes information about the hydrogeologic conditions, the groundwater-detection monitoring program, and the maintenance of groundwater data for the RCRA-permitted treatment, storage, and disposal facility (TSDF) at the Refinery. The only unit subject to groundwater monitoring requirements presented in the Illinois EPA's 2006 Decision Guide is the Land Treatment Facility (LTF)(D81).

E.1 Exemption from Groundwater Protection Requirements

The Refinery is not requesting a waiver from the 35 IAC 724, Subpart F, groundwater monitoring requirements; therefore, subsections E.1.1, E.1.2, and E.1.3 of the Illinois EPA's 2006 Decision Guide are not applicable to the Renewal Application.

E.2 Interim Status Groundwater Monitoring Data

A summary of groundwater monitoring data collected during the interim status period is presented in the Lemont Refinery RCRA Part B Permit Application, Volume 1, November 30, 1984, Section E.2.

Interim status groundwater monitoring was conducted from 1981 through 1994. In order to monitor the uppermost aquifer and overlying zones present the site, the monitoring system was designed to include the following components:

- Six shallow monitoring wells (SW series) completed in the perched water-bearing zones above the saturated zone
- Six deep monitoring wells (UA series) installed in the unconsolidated portion of the uppermost aquifer (Lemont Drift)
- Eighteen piezometers (B series) completed in the dolomite bedrock underlying the Lemont Drift
- Five lysimeters installed in the vadose zone at approximately 28 to 42 inches below the land surface in the silty clay layer underlying the treatment zone in each area as well as one installed outside the landfarm to monitor background concentrations.

Groundwater samples collected from the shallow monitoring wells were analyzed for chemical oxygen demand (COD), total organic carbon (TOC), dissolved lead, dissolved chromium, pH, specific conductance, and temperature. Groundwater samples

collected from the deep monitoring wells were analyzed annually for chloride, total and dissolved iron, total and dissolved manganese, phenols, total and dissolved sodium, and sulfate. Additionally groundwater samples collected from the deep monitoring wells were analyzed semi-annually for pH, specific conductance, TOC, and total organic halogen (TOX) in quadruplicate. Piezometers were used to identify the lithologic and hydrostratigraphic units beneath the site, identify the units that comprise the uppermost aquifer, and determine groundwater flow direction in the uppermost aquifer. Soil-pore water samples (collected from lysimeters) were analyzed for pH, oil and grease, zinc, lead, and total chromium. Select soil-pore water samples were also analyzed for vanadium, hexavalent chromium, arsenic, nickel, copper, zinc, and total petroleum hydrocarbons (TPH) at specific times. Interim status groundwater results did not indicate impacts to groundwater quality due to land treatment activities.

E.3 Historical Hydrogeological Summary

This section identifies the uppermost aquifer and aquifers that are hydraulically interconnected beneath the Refinery's LTF. It includes a discussion of the groundwater classification, flow direction and rate, and the basis for such identification (i.e., information obtained from hydrogeologic investigation). A table of hydraulic properties is also included (Table E-2).

Identification of Aquifers

Three main aquifer systems have been determined to be present in the vicinity of the Refinery during previous investigations (Geraghty & Miller, 1995). The aquifers are:

- The shallow bedrock aquifer (upper formations of the Silurian dolomite).
- The Cambrian-Ordovician aquifer (primarily the Ironton-Galesville and Glenwood-St. Peter sandstone).
- The Mt. Simon aquifer (primarily the Mt. Simon sandstone).

The water table aquifer extends vertically from the lower portion of the Lemont Drift into the Silurian dolomite (the base of the shallow bedrock aquifer system). The Lemont Drift and the shallow bedrock aquifer are hydraulically connected (Geraghty & Miller, 1995).

The shallow aquifer has a maximum thickness of 800 feet and extends to the Maquoketa Formation. The shales in this formation act as a confining layer between the shallow aquifer and the Ironton-Galesville and Glenwood-St. Peter sandstone of the Cambrian-Ordovician aquifer. The Cambrian-Ordovician aquifer is separated from the Mt. Simon aquifer by the shales and siltstones of the Eau Claire Formation.

Recharge of the aquifer system occurs primarily through precipitation events. However, based on the relatively flat groundwater flow gradients at the site, it is likely that water level fluctuations in the nearby river and canal systems affect the water table aquifer. That is, the river most likely acts as a recharge source for the shallow aquifer during high water events. The river and canal system also serve as the primary discharge point for the aquifer system during normal flow conditions.

Groundwater Conditions

The unsaturated zone extends from the land surface through the Wadsworth Till member and the upper half to two-thirds of the Lemont Drift. Most silty sand lenses encountered in the Wadsworth Till are unsaturated; however, there are occasional perched water-bearing zones in the upper portion of the Lemont Drift.

The uppermost water bearing zone beneath the site consists of both saturated, permeable strata (sandy silt, silty sand, and gravel) occurring in the lower part of the Lemont Drift and the saturated dolomite bedrock underlying the drift. These two saturated units are hydraulically connected and are considered as one hydrostatigraphic unit.

Groundwater Classification

35 IAC 620.201 defines four classes of groundwater. Groundwater at the LTF is Class I.

Flow Direction and Rate

The shallow groundwater flow direction at the Refinery is generally north-northwest, toward the river and canal system. However, seasonal fluctuations in the water level of the river and canal system can temporarily alter specific flow direction in the main portion of the Refinery. It is unlikely that river level fluctuations have a significant impact on groundwater flow direction beneath the LTF.

Field observations indicate that the hydraulic conductivities of the glacial deposits range from 10^{-3} to 10^{-4} cm/s in the silty sand layers^a to 10^{-7} cm/s in the glacial till^b. The highest conductivity values of the water table aquifer were observed in coarser-grained, silty sand strata (10^{-2} cm/s)^c in the basal portion of the water table aquifer near the LTF.

^a Site-Wide Groundwater Monitoring and Investigation Work Plan, Trihydro Corporation, January 2007.

^b Ibid.

^c Ibid.

The conductivity of the dolomite in the shallow bedrock portion of the water table aquifer ranges from 10^{-3} to 10^{-5} cm/s^d.

These observed conductivities are within the ranges expected for their respective geologic material. However, the hydraulic conductivity of the dolomite bedrock is directly related to the amount of fracturing present and can vary greatly within the formation. At the Refinery, it is likely that the weathered bedrock in the upper portion of the shallow bedrock aquifer has a much higher conductivity than the more competent bedrock lower in the aquifer.

Basis for Identification of Aquifers/Information Gained from Hydrogeologic Investigations of the Refinery Area

Geologic and groundwater conditions at the Refinery's LTF as described below have been determined based on observation during past drilling efforts at the site, as well as from field and laboratory testing. The potentiometric surface is shown in Tables E-1 and E-2.

Geology

Unconsolidated deposits in the vicinity of the Refinery are Pleistocene (late Wisconsin) glacial deposits of the Wedron Formation. The formation is divided into twelve members. Two of these members have been encountered during previous investigations at the Refinery: the Wadsworth Till and the Lemont Drift.

Wadsworth Till

The Wadsworth Till member is the uppermost unit. It consists of yellowish-brown to dark gray silty clay with small discontinuous lenses of silty sand (generally less than 1 foot thick). This unit is continuous and ranges in depth and thickness from a maximum of sixty feet in the southeastern portion of the Refinery to less than one foot in the northwestern portion.

Lemont Drift

The Lemont Drift is comprised of two distinct lithologic units representing contrasting depositional environments. One unit is a gray to olive brown silty clayey till of glacial origin and the other unit is an olive to grayish brown silty sand unit of lacustrine/fluvial origin. Minor discontinuous layers of gravel (generally less than two feet thick) occur sporadically within the till. The Lemont Drift ranges in thickness from a maximum of 104 feet in the southeastern portion of the Refinery to less than 1 foot in the northwestern portion of the Refinery.

^d Site-Wide Groundwater Monitoring and Investigation Work Plan, Trihydro Corporation, January 2007.

Bedrock Deposits

The bedrock underlying the unconsolidated deposits is the Silurian Racine Dolomite of the Niagaran Series. Overall, the bedrock beneath the site dips approximately 15 feet per mile to the east-northeast (ERT, 1988). The upper portion of the dolomite is typically weathered and fractured and becomes more competent with depth. Based on core sample logs, the first 10 feet of dolomite consists of joints and fractures. The majority of fractures occur within the upper 100 feet of bedrock. The top of the dolomite layer gradually moves closer to ground surface when approaching the southwest boundary of the Refinery. The Racine dolomite is the uppermost Silurian formation and has a maximum thickness of approximately 300 feet. Below the Silurian dolomite is the Maquoketa Group.

The Maquoketa Group consists primarily of Ordovician-aged shale. The shale is underlain (in downward order) by Cambrian-Ordovician Galena-Platteville Dolomite, Glenwood-St. Peter Sandstone, Eminence-Potosi Dolomite, Franconia Formation (sandstone, dolomite, and shale), Iron-ton-Galesville Sandstone, Eau Claire Formation (shale, dolomite, and sandstone), and Mt. Simon Sandstone. Precambrian bedrock underlays these formations.

Geologic cross-sections showing the two distinct unconsolidated units and the top of the Silurian dolomite are presented on Figures E-1 and E-2. The locations of the cross-sections are shown on Figure E-3.

Surface Water

The Lemont Refinery is located within the watershed controlled by the Des Plaines River. The river is located less than 1/3 mile northwest of the Refinery. Two other bodies, the Illinois and Michigan Canal and the Chicago Sanitary and Ship Canal, are located between the river and the Refinery. Both canals are man-made waterways that parallel the Des Plaines River and flow in a similar direction (northeast). The Illinois and Michigan Canal is located adjacent to the western and northern boundaries of the Refinery. The Chicago Sanitary and Ship Canal is located between the Illinois and Michigan Canal and the river. An evaluation of the geology in the area indicates that the shallow groundwater and the canals are hydraulically connected.

E.4 Topographic Map Requirements

The requested information, as listed in Section E.4 of the Illinois EPA's 2006 Decision Guide and as required by 35 IAC 703.183(s) and 35 IAC 703.185(c), is provided in Figures B-1 through B-10. Table E-1 lists which figure provides the requested information. There are no new proposed groundwater monitoring wells. Existing monitoring wells and piezometers are depicted on Figure B-5. The proposed

groundwater monitoring zone, as previously discussed in Section E.3, is the water table aquifer extending vertically from the lower portion of the Lemont Drift into the Silurian dolomite. The information required in 35 IAC 703.185(b), which includes the identification of the uppermost aquifer and aquifers hydraulically interconnected beneath the facility property, including groundwater flow direction and rate, and the basis for such identification, may be found in Sections E.3 and E.6.3. These aquifers are not depicted on figures because they underlie entire area shown. Groundwater flow direction and rate are presented in Figure B-5 (as calculated from data collected for UA-series wells in the October 2006 monitoring event [Shaw Environmental, Inc., January 2007]).

E.5 Contaminant Plume Description

Parameters monitored during interim status in the uppermost aquifer below the LTF are not indicative of any adverse impacts to groundwater. Additionally, hazardous constituents have not been detected in the groundwater below the Refinery's LTF at the time of the Renewal Application's submittal. Therefore, this section of the Illinois EPA's 2006 Decision Guide is not applicable to the Renewal Application.

E.6 Detection Monitoring Program

Hazardous constituents have not been detected in the groundwater below the Refinery's LTF at the time of the Renewal Application's submittal. If, at any time during the lifecycle of the Renewed Permit, groundwater conditions at the Refinery's LTF change and a compliance monitoring program or corrective action program is warranted, the Refinery will initiate the appropriate compliance action. This section provides information, supporting data, and analyses to describe the detection monitoring program that is carried out in accordance with the requirements of 35 IAC 724.198.

The Refinery's LTF detection monitoring program includes (1) the ability to monitor for specific indicator parameters based upon the type and characteristics of waste(s) historically managed at the unit and (2) outlines procedures to maintain a complete and accurate record and statistical evaluation of all groundwater monitoring data. The groundwater monitoring program may be altered as warranted and as appropriate if statistically significant exceedances of hazardous compounds are detected by the monitoring program.

E.6.1 Indicator Parameters, Waste Constituents, and Reaction Products to be Monitored

A list of indicator parameters used in providing a reliable indication of the presence of hazardous constituents in the groundwater is included in Table E-3.

E.6.2 General Monitoring Program Requirements

Information used to develop the groundwater monitoring program in accordance with 35 IAC 724.197 is provided in Section 3 of the document presented in Appendix E.6.2. The document provided in Appendix E.6.2 was written in 1996 and it should be noted that RCRA Permit modifications since that time have altered some of the original requirements presented in this document.

The groundwater monitoring system is designed to provide representative samples from the uppermost aquifer. The groundwater monitoring system is discussed in Section E.6.3. Appropriate procedures for sampling, analyzing, and evaluating groundwater are discussed in Section E.6.4. Groundwater sample collection occurs twice per year, with the first semiannual sampling event occurring in the second quarter and the second occurring in the fourth quarter.

E.6.3 Groundwater Monitoring System

The groundwater monitoring system at the LTF consists of six monitor wells and eighteen piezometers. The monitor wells (designated UA-1 through UA-6) are completed in the upper portion of the aquifer (Lemont Drift) and are used for water level measurements and water quality sampling. The piezometers (designated B-1 through B-18) are completed in the dolomite bedrock underlying the Lemont Drift and are used for water level measurements only. The locations of monitor wells and piezometers are presented in Figure E-4.

In addition to measuring horizontal groundwater flow beneath the site, two of the piezometers are monitored to document vertical flow direction and gradients between the Lemont Drift and the dolomite bedrock. That is, the piezometers identified as B-1 and B-9 have been completed in the upper portion of the dolomite unit adjacent to two monitor wells (UA-5 and UA2) completed in the Lemont Drift.

Compliance Point

Per the requirements of 724.195, the Illinois EPA has specified the point of compliance in the RCRA Part B Permit as being delineated by the wells identified as UA-2, UA-3, UA-4, UA-5, and UA-6. The locations of these wells are illustrated in Figure E-4.

35 IAC 724.197(a)(1)—Background Water Quality

The groundwater monitoring system at the Refinery has been designed to yield background groundwater samples from the uppermost aquifer that represent the quality of background water that has not been affected by potential leakage from the LTF. That is, the monitor well network consists of one up gradient monitor well (designated UA-1) and

five down gradient monitor wells (UA-2 through UA-6). Figure E-4 shows the locations of monitor wells in the monitoring system. Potentiometric surface maps generated from the results of fourth quarter 2006 monitoring (Figures E-5, E-6, and E-7) indicate that the regional groundwater flow is primarily toward the nearby canal and river systems (north and west).

35 IAC 724.197(a)(2)—Groundwater Quality Passing Point of Compliance

The groundwater monitoring system at the Refinery has been designed to yield groundwater samples from the uppermost aquifer that represent the quality of groundwater passing the point of compliance. Figure E-4 shows the locations of monitor wells in the monitoring system. The wells identified as UA-2, UA-3, UA-4, UA-5, and UA-6 are defined by the Illinois EPA as delineating the point of compliance. These five UA-series wells are placed at locations down gradient of the four LTF areas so that impacted groundwater leaving the units would be promptly detected.

35 IAC 724.197(a)(3)—Detection of Contamination

The selection of deep wells for the monitoring system was based on the direction of groundwater flow in the uppermost aquifer and the depth of the screened portion of each monitor well. Groundwater sampling will be conducted at six wells (UA-1 through UA-6) completed in the lower portion of the Lemont Drift because impacts to groundwater in the uppermost aquifer would be detected first in this unit.

35 IAC 724.197(b)—Groundwater Monitoring Systems for Multiple Units

Numerous groundwater wells, piezometers, and surface water gauges have been installed at the Refinery in addition to the 24 wells located at the LTF. These include:

- Fourteen wells and fourteen piezometers located in the South Plant Groundwater Management Zone (GMZ) and designated with the prefixes GMZ-, SWB-, or P-.
- Forty-nine wells and sixteen piezometers associated with a site-wide monitor well network and designated with the prefixes MW-, GQ-MW-, SS-MW-, FR-MW-, SR-MW-, PB-MW-, or PZ-. This network also includes three surface water gauges in the Illinois & Michigan Canal, one surface water gauge in Bruce Lake, and one surface water gauge in the Santa Fe Quarry.

These additional monitor well systems are not integral to the system in place at the LTF. A further discussion of the site-wide monitoring can be found in Section K.4.2.4.

Groundwater Monitoring Well Installation Information

Locations and Depths

The groundwater monitoring system includes provisions for monitoring at the up gradient and down gradient portions of the LTF. Because groundwater in the uppermost aquifer flows in one general direction at the LTF, only one up gradient well and one set of down gradient wells are required. The wells are also spaced based on the general northward direction of aquifer flow so as to detect any hazardous constituents migrating from the four LTF areas. Elevation data for each monitor well are presented in Table E-4.

Construction Details

The borings for the monitor wells were advanced using a hollow stem auger (HSA) drilling rig. Use of this method provided information on the occurrence of groundwater during drilling, allowed for the rapid and easy identification of geologic materials, and avoided the need for drilling fluids that could affect groundwater quality.

Construction details for all existing monitor wells are provided in Table E-5. The following materials and construction techniques were used to install the UA-series wells included in the current detection monitoring program:

- Casing and screen are constructed of two-inch-diameter stainless steel. The stainless-steel screen is commercially available 0.010-slot.
- Granular backfill around the screen is clean, medium to coarse silica sand pack (Ottawa Sand).
- Commercial bentonite (pellet) was used for the seal.
- Type I Portland cement with granulated bentonite was used for the grout seal.
- The well protector is constructed of steel casing. A lockable cover is provided.
- Piezometers (B-series) were similarly constructed except that the casing and screen are made of polyvinyl chloride (PVC).

Boring Logs

Boring logs for the groundwater monitoring system at the LTF are presented in Appendix E.6.2.

Well Completion Reports

Well completion reports for the groundwater monitoring system at the LTF are presented in Appendix E.6.3.

Monitor well Elevation Information

Monitor well elevation information, including well depth, screen interval, ground surface, and stick-up height in feet amsl and feet bgs, is presented in Table E-4.

E.6.4 Description of Sampling and Analysis Procedures

This section details the methods for the collection and analysis of groundwater samples, including procedures and techniques for sample collection, sample preservation and shipment, analytical procedures, and chain-of-custody control. Descriptions of these methods, including provisions for water level measurement, monitor well purging, sample collection, sample handling, documentation and analysis, analytical procedures, and decontamination procedures are provided in the following subsections.

Water Level Measurement

During each sampling event, the depth to groundwater and total well depth are measured from the surveyed reference point at the wellhead of each monitor well and piezometer. Water level measurements are made with a decontaminated, electronic water level meter and reported to the nearest 0.01 foot. To ensure that the electronic water level meter is not contaminated or cross contaminated by materials and equipment used during the investigation, the meter is decontaminated per the protocol given later in this section before each use.

Monitor Well Purging

Groundwater monitor wells are purged and sampled by using dedicated bladder pumps. Disposable Teflon® bailers may also be used for well purging and sampling in the event that dedicated pumps are not functional.

Dedicated pumps are connected to a controller powered by a portable generator. A minimum of three well volumes must be purged from a well prior to sample collection. The purge rate will be adjusted to provide the maximum uninterrupted flow rate. Purge water is containerized temporarily at each well site during purging and sampling. Following completion of sampling activities at each site, purge water is disposed of properly (treatment at the Refinery's waste water treatment plant, off-site disposal, etc.).

If a well is purged dry, it will be sampled as soon as a sufficient volume of groundwater has re-entered the well to allow for the collection of the necessary samples.

Field measurement of pH, specific conductivity, temperature, and turbidity will be performed during the purging process. Field parameters will be considered stable and purging may cease once two consecutive measurements vary by less than:

- 0.5 pH units.
- ± 10 micromhos per centimeter ($\mu\text{mhos/cm}$) for specific conductivity.
- 1.0 degrees Celsius ($^{\circ}\text{C}$) for temperature.
- 10 percent (%) for turbidity (if possible, purging will continue until the measured turbidity value is below the recommended 5 nephelometric turbidity units [NTUs]).

If field parameter values have not stabilized after three well volumes have been purged, then up to two additional well volumes may be purged.

Sample Collection

Samples are collected as soon as possible following well purging and a sufficient volume of water has recovered in the well. Groundwater sampling will begin at the up gradient well and progress to the down gradient wells. Required containers, preservatives, and sample volumes are given in Table E-6.

Once purging is complete, the purge rate will be reduced in order to minimize agitation of the sample material during the collection process. Sample will be collected by directing the flow from dedicated pumps into appropriate sample containers. For analyses that require a chemical preservative (e.g., nitric acid), the prescribed amount of preservative will be added to the sample container prior to the collection of samples. Samples will be containerized in the following order:

- Total Organic Carbon (TOC).
- Total Organic Halogens (TOX).
- Dissolved Arsenic.
- Field Measured Parameters (if necessary): pH, specific conductivity, temperature, and turbidity.

Samples to be submitted for dissolved arsenic analyses require field filtration prior to collection. Sample material will be passed through a 0.45-micron disposable filter and into an appropriate container, which includes the proper preservative. Filters capable of being installed in the tubing associated with dedicated pumps will be used. Filters will be used for one sampling event at one well, and then be discarded. Filters

will not be installed in the tubing when collecting material for TOC, TOX, or field measured parameters.

Once filled and capped, samples containers for TOC and TOX analyses will be checked for headspace by inverting the container and checking for trapped bubbles. If headspace is observed, the sample will be discarded and a new container filled.

Immediately following sample collection, sample containers will be labeled.

Sample Preservation and Shipment

Immediately following collection and labeling, samples will be preserved with sufficient ice to maintain a temperature of $4^{\circ}\text{C} \pm 2^{\circ}\text{C}$ until they arrive at the analytical laboratory. Samples will be collected and either (1) shipped to the laboratory via Federal Express overnight delivery (or equivalent), or (2) hand-delivered to the analytical laboratory. In either case, samples must be shipped or delivered on the day of sample collection or the following day. Until shipment/delivery, sample integrity must be maintained. Specifically, appropriate sample preservation techniques (e.g., chemical preservations, stored in coolers with ice) will be applied, samples will be packaged to prevent breakage or cross-contamination, and samples will remain under the control (e.g., within sight, locked storage) of the field sampling team until custody is relinquished to the overnight delivery service or laboratory personnel. Required containers, preservatives, and sample volumes are given in Table E-6. If samples are held overnight, sufficient ice will be added to the cooler to maintain the required preservation temperature of $4^{\circ}\text{C} \pm 2^{\circ}\text{C}$ and the coolers will be kept in a locked, secure location.

Upon receipt, the laboratory ensures that sample temperatures are within the required range ($4^{\circ}\text{C} \pm 2^{\circ}\text{C}$).

Laboratory Analytical Procedures

Table E-7 presents preparatory and analytical methods to be used by the analytical laboratory for groundwater samples. Target analytes are listed in Table E-3.

Field Analytical Procedures

Field measurements for pH, specific conductivity, temperature, and turbidity will be made using a battery-powered meter. The meter must consist of:

- A glass hydrogen-ion electrode to measure pH.
- An alternating four-electrode sensor to measure conductivity.
- A thermistor to measure temperature.

- A light absorption scattering probe to measure turbidity.

The meter will be positioned during well purging for simultaneous measurement of all field parameters. In case of meter failure, an alternate equivalent instrument (or instruments) will be used until the meter can be repaired or replaced.

Field instruments will be calibrated according to manufacturer's specification prior to the start of each sampling event. Calibration will be performed using standard materials traceable to the National Institute of Standards and Testing (NIST). Calibration will also be performed at the beginning of each working day using one auto-calibration solution for all field parameters, excluding temperature. Additionally, a one-point check for pH and conductivity will be performed periodically throughout the working day using a standard pH solution with a value near the range of measured values (4, 7, or 10 buffer solution) and a 1,000- μ mhos/cm solution for conductivity. If results from the one-point check indicate that the meter is not operating within 0.1 standard units for pH and 10 μ mhos/cm for conductivity, then the meter will be recalibrated. All calibration information will be recorded in appropriate field notes (logbook or form) and includes:

- Instrument Manufacturer and Serial Number.
- Calibration Solution Name, Manufacturer, Concentration, and Lot Number.
- Time of Calibration.
- Results of Calibration.

Quality Control Samples

The quality control (QC) samples collected in association with groundwater monitoring will include field duplicates, trip blanks, and matrix spike samples. Equipment rinsate blanks will also be collected when non-dedicated or non-disposable sampling equipment is used. Acceptance criteria for QC samples are presented in Table E-8.

A field duplicate is defined as two samples collected as close in space and time as possible. They are collected to evaluate sampling and analytical precision. One field duplicate will be collected and submitted for laboratory analyses from the UA-series wells for each sampling event. Duplicate samples will be analyzed for all analytical parameters.

A trip blank is an aliquot of blank matrix placed in a sample container at the laboratory that is shipped to the site with sample containers, and then shipped back to the laboratory with the collected samples. Trip blank containers are not opened in the field.

Trip blanks are used to monitor for potential contamination that may occur during the shipment and/or sample storage process. A trip blank will be submitted in every cooler containing groundwater samples for TOC analysis. Trip blanks will be analyzed for TOC.

Matrix spike (MS) samples are those aliquots of field samples that are spiked in the laboratory with target analytes. Duplicate matrix spike samples (i.e., MS/MSD pairs) are analyzed along with an un-spiked aliquot of the same sample. That is, three times the normal volume for one sample will be submitted to the analytical laboratory. The purpose of MS samples is to evaluate the accuracy of the reported results given any potential influences from the sample matrix. When analyzed in duplicate, MS/MSD samples also allow for assessment of precision in the presence of potential matrix interferences. Sufficient volume of groundwater from one UA-series well will be submitted to the laboratory for TOC, TOX, and dissolved arsenic MS/MSD analyses.

Chain of Custody Control

Sample custody is an organized system for documenting sampling history and providing a legal record of the measurement process. Evidence of the sample traceability from collection to shipment, laboratory receipt, and laboratory custody must be documented.

The sample collection team is responsible for ensuring sample custody until the samples have been transferred to an overnight delivery service or the laboratory. Once received by the laboratory, the samples proceed through an orderly processing sequence specifically designed to ensure continuous integrity of both the sample and their associated documentation. A sample is considered to be in a person's custody if the sample is (1) In a person's actual possession, (2) In view after being in a person's possession, (3) Locked so that no one can tamper with it after having been in physical custody, or (4) In a secured area, restricted to authorized personnel.

The chain-of-custody procedures consist of:

- Preparing and attaching a unique sample label to each sample collected.
- Documenting pertinent site, sample collection, and field measurement information into a field logbook or data sheet.
- Completing the chain-of-custody form.
- Preparing and packing the samples for shipment.
- Documenting laboratory receipt of the samples.

- Documenting laboratory storage, handling, and analysis.
- Documenting final disposition of the sample.

Field personnel are responsible for uniquely identifying and labeling all samples collected to avoid accidental mislabeling. All labeling will be completed in indelible/waterproof ink and securely affixed to the sample container. Sample labels will be waterproof with a strong adhesive backing. Each sample label will include:

- Project Name/Site Identifier.
- Unique Sample Identification.
- Date and Time of Sample Collection.
- Sample Preservative.
- Sample Matrix.
- Analysis Requested.
- Sampler's Name or Initials.

Each sample, including quality control samples collected in the field, will be assigned a unique three-part identifier. The first part of the identifier will specify the sample location (i.e., well). The second part will identify the quarter and year the sample was collected. The final part of the identifier will identify the sample type. The following is example sample identification:

UA1-407-N

- UA1 identifies the location (i.e., monitor well number 1).
- 407 identifies that the sample was collected in the fourth quarter of 2007.
- N identifies the sample as a normal sample (E=equipment blank, D=duplicate blank, T=trip blank).

Sample labels will be waterproof with a strong adhesive backing. An example of an acceptable sample label is presented as Figure E-8.

Chain-of-custody forms (COC) must be completed for each sample set submitted for analysis. These forms are maintained as a record of sample collection, transfer, shipment, and receipt by the laboratory. These forms also contain pertinent information concerning sampling locations, collection dates, signatures of at least one sampling team member, sample matrices, assigned sample identification numbers, the project name and

number, and the name of the laboratory to which the samples are being sent for analysis. The name, phone number, and fax number of the person to whom data are to be reported will also be noted on the COC form. Samples suspected of being heavily contaminated must be noted. COC forms must be completed to ensure proper transfer of custody from the time of sample collection to analysis. Refinery personnel maintain a copy of each completed COC form. An example chain-of-custody form is presented as Figure E-9.

A completed COC form will accompany samples during each step of custody transfer and shipment. When physical possession of samples is transferred, both the individual relinquishing the samples and the individual receiving them will sign, date, and record the time on the COC form. In the case of sample shipment by an overnight courier, a properly prepared air bill (waybill) will serve as an extension of the COC form while the samples are in transit.

The following steps must be followed when packing environmental samples for shipment by air:

1. Select a sturdy cooler in good condition. Secure and tape the drain plug with duct tape.
2. Be sure the caps on all bottles are tight (will not leak); check to see that labels and chain-of-custody records are completed properly.
3. Place all bottles in separate and appropriately sized plastic zip-top bags and close the bags. Up to three volatile organic analysis vials may be packed in one bag. Bottles may be wrapped in bubble wrap. It is preferable to place glass sample bottles and jars into the cooler vertically. Due to the strength properties of a glass container, there is much less chance for breakage when the container is packed vertically rather than horizontally.
4. Place two to four inches of packing peanuts or vermiculite into the bag in the cooler and then place the bottles and cans in the bag with sufficient space to allow for the addition of more packing peanuts or vermiculite between the bottles and cans.
5. Put ice in large plastic zip-top bags and properly seal. Place these ice bags on top of and between the samples. Fill all remaining space between the bottles or cans with packing peanuts, bubble wrap, or vermiculite.
6. Place the completed Chain-of-Custody Record into a plastic zip-top bag, tape the bag to the inner side of the cooler's lid, and then close the cooler.

7. Strapping tape shall be wrapped around each end of the cooler two times, and completed custody seals affixed to the top on adjacent sides of the cooler (example custody seal is presented in Figure E-10). Place the custody seals so that the cooler cannot be opened without breaking the seal. Place clear shipping tape over the custody seals.
8. A label containing the name and address of the shipper shall be placed on the outside of the container, preferably using a handle-tag or secured with extra tape across the top of the cooler.

Samples will be received and logged in at the analytical laboratory by a designated laboratory sample custodian or other properly trained laboratory employee. Upon sample receipt, the laboratory sample custodian will perform the following, as appropriate:

- Examine the shipping containers to verify that the custody tape is intact.
- Examine sample containers for damage.
- Open shipping containers in adequately ventilated areas to assure worker safety.
- Determine if the required temperature has been maintained during shipment and document the shipping container temperature on the COC or other appropriate form.
- Compare samples received against those listed on the COC.
- Examine shipping records for accuracy and completeness.
- Sign and date the COC immediately (only after shipment is accepted) and attach the waybill.
- Note any problems associated with the coolers and samples and notify the laboratory Project Manager who in turn notifies the appropriate Lemont Refinery or sub-contracting personnel.
- Attach durable (water-resistant) laboratory sample container labels with unique laboratory identification number and test.
- Place the samples in proper laboratory storage.

Laboratory sample control personnel may generate a laboratory-specific form or report during the sample login process to document condition upon receipt anomalies.

The laboratory Project Manager (or designee) will notify appropriate Lemont Refinery or sub-contracting personnel of anomalies identified in association with their samples. The laboratory Project Manager is responsible for resolving how to proceed with the samples and documenting the decision to proceed with the analysis of compromised samples. Condition upon receipt anomalies must be resolved prior to sample preparation and analysis. Any completed documentation (i.e., reports or forms) shall be stored in the laboratory's project file. The report narrative will also include an explanation of sample receipt-related anomalies.

Sample login activities at the laboratory must be fully documented. The following is the description of the required login process:

- Enter the samples in the laboratory's information management system (LIMS) which contains the following minimum information:
 - Project name or identification number.
 - Unique sample numbers (both client and internal laboratory).
 - Type of samples.
 - Required tests.
 - Date and time of laboratory receipt of samples.
 - Field identifier supplied by field personnel.
- Notify the laboratory Project Manager and appropriate laboratory department(s) of sample arrival.
- Place the completed COCs, waybills, and any additional documentation in the project file.

The primary considerations for sample storage are maintenance at the method-prescribed temperature, maintenance of sample integrity through adequate protection from contamination, and security of samples within the laboratory.

The requirements listed in Table E-6 for temperatures and holding times will be followed. Placing samples in the proper storage environment is the responsibility of the laboratory sample custodian. The sample custodian will also assign individuals the responsibility of notifying the Laboratory Manager if there are any samples that must be analyzed immediately because of holding time requirements.

Access to the laboratory facility will be restricted to prevent any unauthorized contact with samples, extracts, or documentation.

Samples transferred to a laboratory other than the original receiving facility will be transferred under COC. A copy of the completed COC form will be retained in the laboratory project file. In the case where an aliquot of a sample is shipped from the laboratory, a new COC will be generated by the laboratory and shipped with the sample aliquot. The original COC will be retained in the project file at the site holding the original sample container.

After the requested analyses on the samples have been completed, the sample custodian will maintain any remaining portions of the samples until the time of sample disposal. The disposal of each sample is recorded on the client's COC form, in the LIMS, or referenced in the project file. Sample material will be stored for at least thirty days after the analytical report is issued. A copy of the completed COC is retained in the laboratory project file.

Decontamination Procedures

If the equipment used for sample collection is not dedicated or disposable, then it must undergo decontamination. The objective of equipment decontamination is to remove potential contaminants from a sampling device or item of field equipment prior to and between collection of samples for laboratory analysis and limit personnel exposure to residual contamination that may be present on used field equipment. Most sampling equipment can be decontaminated by using the following procedure:

1. Lay out sufficient polyethylene sheeting on the ground or floor to allow placement of the equipment being decontaminated.
2. Remove non-aqueous phase liquids (NAPL), if present, with an absorbent pad or other suitable device.
3. Remove any solid material (to the degree possible) with a brush and potable tap or distilled water.
4. Wash the equipment with a brush, laboratory grade non-phosphate detergent (e.g., Liquinox, Alconox), and potable tap or distilled water.
5. Rinse the equipment with potable tap or distilled water.
6. Rinse the equipment with 70 percent isopropyl alcohol.
7. Rinse the equipment with distilled water.

8. Reassemble equipment, if necessary, and wrap completely in clean, unused aluminum foil, shiny side out for transport and/or storage. Re-use of equipment on the same day without wrapping in foil is acceptable.

Record all decontamination procedures in the field logbook or appropriate field form.

E.6.5 Evaluation of Groundwater Surface

Procedures for Measurement of Groundwater Surface Elevation

Per Permit Condition III.F.1, the depth to groundwater is measured during each sampling event from a standard reference point on the top of the well casing, the elevation of which has been determined by a professional land surveyor every five years or when the elevation has changed. The depth to groundwater is measured using an electronic water level meter and recorded to the nearest 0.01 foot.

Determination of Groundwater Flow Rate and Direction

The groundwater level measurements are used to determine groundwater flow direction and rate, which are calculated on an annual basis. These calculations involve the construction of a potentiometric surface map, which is then used to determine the direction of groundwater flow (perpendicular to potentiometric contours) and the hydraulic gradient (slope of the potentiometric surface) in the uppermost aquifer.

E.6.6 Background Quality

Background values are measured at well UA-1. The results of semiannual groundwater monitoring at wells down gradient of UA-1 are compared to the established background monitoring limit values to identify any potential impacts to the groundwater as a result of activities at the LTF. Monitoring limits used for statistical evaluation of groundwater monitoring results were originally calculated using data gathered during interim status monitoring. Per the requirements of the 2006 Decision Guide, background monitoring limits were re-evaluated and re-calculated during the generation of this Renewal Application.

Historic Determination of Background-Based Monitoring Limits

Original monitoring limits were calculated based on analytical results from well UA-1 gathered during the interim status period. Monitoring limits were determined using the average of the interim status data and represent a 95%/95% upper tolerance limit (UTL) for each parameter. That is, the monitoring limit for a given parameter is the statistically-derived value below which one has 95% confidence that 95% of all

background concentrations will occur. Original monitoring limits are provided in Table E-9.

It should be noted that data used to calculate the limits were from samples collected in November 1994, with the exception of TOC. It was discovered that the November 1994 TOC samples were not collected from well UA-1. The proper well was sampled in February 1995 for TOC, and these new results were used in the calculations.

Equations used to calculate average (\bar{x}) and standard deviation (s) for normally distributed parameters were:

$$\bar{x} = \frac{1}{n} \sum_{i=1}^n x_i \quad s = \frac{1}{n-1} \sum_{i=1}^n (x_i - \bar{x})^2$$

For constituents assumed to be lognormally distributed, the average (\bar{x}_{\log}) and standard deviation (s_{\log}) of the log background concentrations were estimated as:

$$\bar{x}_{\log} = \frac{1}{n} \sum_{i=1}^n \log(x_i) \quad s_{\log} = \frac{1}{n-1} \sum_{i=1}^n (\log(x_i) - \bar{x}_{\log})^2$$

The equation used to calculate the monitoring limit for normally distributed parameters was:

$$UTL = \bar{x} + Ks$$

where K is the appropriate tolerance factor.

The equation used for lognormally distributed parameters was:

$$UTL = e^{(\bar{x}_{\log} + Ks_{\log})}$$

where K is the appropriate tolerance factor.

Data sets for pH, conductivity, and TOC were all assumed to be normally distributed for the purpose of generating historic calculations. Data sets for TOX were assumed to be lognormally distributed.

Re-Evaluation of Background-Based Monitoring Limits

Data from the Illinois EPA's groundwater database for background well UA-1 covering the period between 1998 through 2006 were used to recalculate 95%/97.5% tolerance limits. These data were segregated by analyte then evaluated for percent non-detected results and distribution. Based on conclusions from these evaluations, UTLs

were calculated using appropriate statistical equations and considerations. Results used to re-calculate UTLs are presented in Table E-10.

For data sets with less than 50% non-detected results (pH, specific conductivity, and TOC), each non-detected result was replaced with a random number between zero and the reporting limit.

Also for data sets with less than 50% non-detected results (pH, specific conductivity, and TOC), the Shapiro-Wilk test was used to evaluate data distributions. This test calculates a W statistic using the following equation:

$$W = \left[\frac{\sum_{i=1}^n a_i x_{(i)}}{\sqrt{n-1} \sum_{i=1}^n (x_i - \bar{x})^2} \right]^2$$

where $x_{(i)}$ are the ordered sample values ($x_{(1)}$ is the smallest) and a_i are constants generated from means, variances, and covariances of the order statistics of a sample size n from a normal distribution. Specifically, if the calculated value of the W statistic is greater than published 5% critical values for sample size n , then the normality of the data set is confirmed. If the calculated value is too low when compared to the published value, the test is performed a second time on the logarithms of the original data to test for lognormality. Using this method, the reported values for specific conductivity and pH were found to be normally distributed and the TOC data set was lognormally distributed. Distribution was not assigned for sample sets with more than 50% non-detected results (dissolved arsenic and TOX).

As noted previously, equations used to calculate average (\bar{x}) and standard deviation (s) for normally distributed parameters (specific conductivity and pH) were:

$$\bar{x} = \frac{1}{n} \sum_{i=1}^n x_i \quad s = \frac{1}{n-1} \sum_{i=1}^n (x_i - \bar{x})^2$$

For constituents found to be lognormally distributed (TOC), the average ($\overline{x_{\log}}$) and standard deviation (s_{\log}) of the log background concentrations were estimated as:

$$\overline{x_{\log}} = \frac{1}{n} \sum_{i=1}^n \log(x_i) \quad s_{\log} = \frac{1}{n-1} \sum_{i=1}^n (\log(x_i) - \overline{x_{\log}})^2$$

The equation used to calculate the monitoring limit for the normally distributed parameter (specific conductivity and pH) was:

$$UTL = \bar{x} + Ks$$

where K is the appropriate tolerance factor. It is also noted that a lower tolerance limit (LTL) was calculated for pH using the following equation:

$$UTL = \bar{x} - Ks$$

The equation used for lognormally distributed parameters (TOC) was:

$$UTL = e^{(\bar{x}_{\log} + Ks_{\log})}$$

Dissolved arsenic has never been detected in well UA-1, based on Illinois EPA groundwater database entries. Therefore, the UTL is set at two times the permit specified reporting limit given in Table E-8.

The TOX data set includes 91 percent non-detected results (3 detections in a total of 34 results). Following guidance given in Statistical Analysis of Ground-Water monitoring Data at RCRA Facilities, Addendum to Interim Final Guidance (USEPA, July 1992), a Poisson Tolerance limit was calculated for TOX by finding the smallest degrees of freedom (k) such that

$$\chi^2_{0.025}[2k+2] \geq \left(\frac{1}{2n} \chi^2_{0.975}[2T_n+2] \right) * 2$$

where T_n represents the Poisson count of the sum of n background samples (setting non-detects to half the reporting limit), and

$$\chi^2_{0.975}[2T_n+2]$$

represents the 97.5 percentile of the Chi-square distribution with $(2T_n+2)$ degrees of freedom.

All re-calculated monitoring limit values are given in Table E-9.

E.6.7 Statistical Evaluations

Statistical evaluations that follow the U.S. EPA's recommended approach to statistically evaluate groundwater quality data at RCRA facilities are performed on the groundwater data after the completion of each semiannual groundwater sampling event. Data collection is performed such that four replicate values are determined for dissolved arsenic, pH, specific conductivity, TOX, and TOC. The average of the four replicate values is compared to established monitoring limits. The groundwater-monitoring-program-derived monitoring limit values are presented in Table E-9. If the current

average value at any monitor well at the compliance point exceeds the associated monitoring limit, then a statistically significant increase may be indicated for that value. Unless it can be determined that a source other than the LTF caused the detection or that the detection is an artifact of sampling error, potentially impacted wells will be re-sampled and re-analyzed for those constituents exceeding the monitoring limit within 10 days of receiving the initial laboratory data. If the second round of analyses indicates the same constituent exceeds the associated monitoring limit, then a statistically significant increase is confirmed and the Illinois EPA will be notified within 7 days of the finding. Additionally, within 90 days of the original notification, an application for a Permit modification to establish a compliance monitoring program meeting the requirements of 35 IAC 724.199 will be submitted. In addition to, or in lieu of submitting an application for Permit modification, it may be demonstrated that a source other than the LTF caused the detection or that the detection is an artifact caused by an error in sampling (this will not relieve the requirement of submitting a Permit modification application within 90 days unless the demonstration successfully shows that a source other than the LTF caused the increase).

E.6.8 Statistically Significant Increases

If it is determined using the method described in Section E.6.7 that there is a statistically significant increase for any of the detection monitoring parameters at any compliance point monitor well, then the Refinery proceeds according to the following protocol:

- The Lemont Refinery will notify the Illinois EPA in writing within seven days of the finding indicating the specific parameters and wells have exhibited statistical increases and provide all statistical calculations that have been completed.
- All of the monitor wells will then be immediately resampled and analyzed for all 35 IAC Part 724, Appendix I constituents.
- For Appendix I compounds detected in the analysis, the Refinery may resample within one month and repeat the analysis for those constituents detected. If the results for the second round of analyses confirm the first round, then these results will form the basis for compliance monitoring. If no resampling is performed, then the first round of analyses will be the basis for compliance monitoring.
- The Refinery will establish background values for each 35 IAC Part 724, Appendix I, constituent found in the groundwater based on a minimum of four

sampling events from well UA-1.

- Within 90 days of the date that the increase was discovered, the Refinery will submit to the Illinois EPA an application for a permit modification to establish a compliance monitoring program meeting the requirements of 35 IAC 724.199. This application will include:
 - An identification of the concentration of any 35 IAC 724, Appendix I constituents found in the groundwater at each monitor well at the compliance point.
 - Any proposed changes to the groundwater monitoring system necessary to meet the conditions of Section 724.199.
 - Any proposed changes to the monitoring frequency, sampling and analysis procedures, methods, and/or statistical procedures to meet the requirements of Section 724.199.
 - For each hazardous constituent found at the point of compliance, a proposed concentration limit under 35 IAC 724.194(a)(1) or 724.194(a)(2), or a notice of intent to seek an alternative concentration limit for a hazardous constituent under 35 IAC 724.194(b).
- The Refinery will submit to the Illinois EPA a corrective action feasibility plan within 180 days of the date that increase is discovered. This plan will meet the requirements of 35 IAC 724.200, unless all 35 IAC Part 724, Appendix I, constituents identified are listed in 35 IAC 620.410 and their concentrations do not exceed the respective values given in that section or the Lemont Refinery has sought an alternate concentration limit for these hazardous constituents.
- Within 180 days of the date that the increase is discovered, the Refinery will submit to the Agency all data necessary to justify any alternate concentration limit sought for a hazardous constituent listed in 35 IAC Part 724, Appendix I.
- In addition to, or in lieu of, submitting an application for Permit modification, the Refinery may demonstrate that a source other than the LTF caused the contamination, or that the detection is an artifact caused by an error in sampling, analysis, or evaluation. However, the Refinery is not relieved of submitting a Permit modification within 90 days unless the demonstration successfully shows that a source other than the permitted unit caused the

increase. To make this demonstration, the Refinery will complete the following tasks:

- Notify the Illinois EPA within seven days of the date that increase is discovered that the Refinery intends to make this demonstration.
- Submit a report to the Illinois EPA within 90 days of the date that increase is discovered that demonstrates that a source other than the LTF caused the increase, or that the increase resulted from an error in sampling, analysis, or evaluation.
- Submit an application to the Illinois EPA within 90 days of the date that increase is discovered to make any appropriate changes to the detection monitoring program.
- Continue to monitor in accordance with the current detection-monitoring program at the Refinery.

E.7 Compliance Monitoring Program

Since no hazardous constituents have been detected in the groundwater at the point of compliance at the time of submittal of the Renewal Application, this section is not applicable to the Lemont Refinery.

E.8 Corrective Action Program

Since hazardous constituents that exceed the concentration limits established in Table 1 of 35 IAC 724.194 have not been detected in the groundwater, nor has groundwater monitoring conducted at the LTF boundaries indicated the presence of hazardous constituents from the Refinery in groundwater over background concentrations, this section is not applicable to the Refinery.

E.9 Reporting Requirements

Groundwater sample collection activities are recorded in bound field notebooks with consecutively numbered pages. Details of the sampling effort, such as samples collected, any observations (e.g., time, date, weather), and any problems, are recorded for each well. Either the Refinery's Environmental Department or the groundwater sampling contractor maintains the bound field notebook.

The required results of each semiannual groundwater monitoring event will be submitted to the Illinois EPA in an Agency-approved format. The groundwater monitoring report (including data for upload into the Illinois EPA's groundwater monitoring database) will be submitted by July 15 for the sampling event conducted in

the previous April, May, and/or June, and by January 31 for the sampling event conducted in the previous October, November, and/or December.

E.10 Description of Corrective Action for Solid Waste Management Units

A discussion of corrective action as necessary to protect human health and the environment from any releases of hazardous waste or constituents from any SWMU at the facility, including a schedule for corrective actions, financial responsibility for completing corrective action, and corrective measures beyond the property boundary have been addressed in Section K of the Renewal Application, as applicable.

Corrective Action at the Refinery

A discussion of corrective action as necessary to protect human health and the environment from any releases of hazardous waste or constituents from any SWMU at the facility has been addressed in Section K of the Renewal Application.

Schedule for Corrective Actions

A schedule for corrective actions at the facility has been addressed in Section K of the Renewal Application.

Financial Responsibility for Completing Corrective Action

Financial responsibility for completing corrective action at the facility has been addressed in Section I of the Renewal Application.

Corrective Measures Beyond Property Boundary

At the time of this permit renewal request, no corrective measures in accordance with 35 IAC 724.210(c) have been necessary to protect human health and the environment beyond the property boundary.

References

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- United States Environmental Protection Agency (U.S. EPA). 1986. RCRA Technical Enforcement Guidance Document.
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**RENEWAL PART B PERMIT APPLICATION
VOLUME 1, SECTION E**

**Remove Tables E-1 through E-4
and replace with the attached Tables E-1 through E-4.**

Table E-1. Facility Map Requirements Cross-Reference Table

Requested Information	Primary Figure in Which Information is Provided ^{1,2}
Map Orientation (North Arrow)	B-1 through B-7
Map Date	B-1 through B-7
Scale	B-1 through B-7
Legal Boundaries	B-1 through B-6
Surrounding Land Uses	B-2 through B-6
Access Controls	B-2 through B-6
Buildings and Structures	B-2 through B-6
Sewers: Process	B-2 through B-6
Sewers: Storm	B-2 through B-6
Storm Drains	B-2 through B-6
Loading and Unloading Areas	B-3
Fire Control Facilities	B2 and B3
Contours Sufficient to Show Surface Water Flow Around Facility Unit Operations	B-1 through B-6
100-Year Floodplain Area	B-2, B-3, and B-7
Surface Water, Including Intermittent Streams	B-2, B-3, B-4, and B-5
Flood Control or Drainage Barriers and Runoff Control Systems (Ditches)	B-2 through B-6
Wind Rose	B-2 through B-6
Injection Wells (On-Site and Off-Site) ³	Injection wells are not located on or within 1000 feet of the Lemont Refinery's property line.
Withdrawal Wells (On-Site and Off-Site) ³	B-1 through B-6
New (Proposed) Hazardous Waste Management Units	The Refinery is not proposing any additional hazardous waste management units
Existing Hazardous Waste Management Units	B-1- and B-5
Solid Waste Management Units	B-2 through B-6

¹ Some Refinery information is repeated on multiple figures; however, only the primary figure(s) that presents the specified information is included in this table.

² Key map is provided as Figure B-8. USGS contours are depicted on Figure B-9. Detailed descriptions of access point are shown on Figure B-10.

³ The Refinery does not use any injection or withdrawal wells for refinery or hazardous waste management operations. Nearby drinking water wells are shown in Figures B-1 through B-6.

Table E-2. Hydraulic Properties of the Uppermost Aquifer

Parameter	Units	Wedron Formation Member	
		Lemont Drift	Silurian Dolomite
Hydraulic Conductivity ¹	cm/sec	10 ⁻²	10 ⁻³ to 10 ⁻⁵
Average Horizontal Permeability ²	ft/day	3.56 x 10 ⁻⁵	<10 ⁻⁶
Sieve Analysis ²		Gravelly Silty loam	NA
Porosity ³	%	30	5

Notes:

- ¹ Hydraulic conductivity values are from: Site-Wide Groundwater Monitoring and Investigation Work Plan, Trihydro Corporation, January 2007.
- ² Average horizontal permeability and sieve analysis values for the Lemont Drift are from: Hydrogeologic Investigation of A Land Application Site, Converse/Tenech Geotechnical and Environmental Consultants, August 1981. The average horizontal permeability value for the Silurian Dolomite is based on findings from: Summary Report of Supplemental Hydrogeologic Investigation for the UNOCAL Chicago Refinery Land Treatment Facility, ERT, May 1988.
- ³ The porosity value for the Silurian Dolomite is from: Dependence of conductivities and anisotropies of geologic properties within the near-surface aquifer in Milwaukee, Wisconsin: University of Wisconsin–Milwaukee, Ph.D. dissertation, Carlson, D.A., 2000.

Table E-3. Indicator Parameters for Groundwater Samples

Indicator Parameters	STORET	Units
Indicator Parameters		
Total Organic Carbon (TOC)	00680	mg/L
Total Organic Halogens (TOX)	78115	µg/L
Dissolved Arsenic	01000	mg/L
Field Parameters		
pH	00400	Standard Units
Specific Conductance	00094	micromhos/cm
Temperature	00011	°F
Turbidity	45626	NTU
Well and Groundwater Elevation Parameters		
Depth to Water (bls)	72019	Feet
Depth to Water (fmp)	72109	Feet
Elevation of Groundwater Surface	71993	Feet MSL
Elevation of Well Bottom	72020	Feet MSL
Elevation of Measuring Point (top of casing)	72110	Feet MSL

bls Below Land Surface
cm Centimeter
°F Degrees Fahrenheit
fmp From Measuring Point
mg/L Milligrams per Liter
µg/L Micrograms per Liter
MSL Mean Sea Level
NTU Nephelometric Turbidity Unit

Note: "Dissolved" indicates that analysis will be performed using a sample that has been filtered through a 0.45 micron filter.

Table E-4. Well and Groundwater Elevation Data

Well/ Piezometer	Well Depth		Screen Interval		Ground Surface	Height of Stick-Up	
	Feet amsl	Feet bgs	Feet amsl	Feet bgs	Feet amsl	Feet amsl (top of casing)	Feet ags
Monitor Wells							
UA-1	611.90 ^a	106.91 ^b	623.80-613.80 ^c	92.1-102.1 ^d	715.3 ^e	718.81 ^a	3.51 ^b
UA-2	605.64 ^a	86.64 ^b	619.74-609.74 ^c	70.0-80.0 ^d	689.7 ^e	692.28 ^a	2.58 ^b
UA-3	608.18 ^a	89.53 ^b	620.20-610.20 ^b	74.7-84.7 ^d	694.9 ^e	697.71 ^a	2.81 ^b
UA-4	608.98 ^a	86.96 ^b	620.98-610.98 ^c	72.1-82.1 ^d	693.1 ^e	695.94 ^a	2.84 ^b
UA-5	602.24 ^a	92.59 ^b	622.24-604.84 ^c	72.1-82.1 ^d	691.9 ^e	694.83 ^a	2.93 ^b
UA-6	605.55 ^a	96.20 ^b	619.26-609.26 ^c	79.0-89.0 ^d	698.3 ^e	701.75 ^a	3.45 ^b
Piezometers							
B-1	584.4 ^f	108.3 ^f	590.8-585.7 ^f	101.9-107.0 ^f	692.7 ^f	695.2 ^b	2.5 ^f
B-2	584.6 ^f	110 ^f	593.7-588.6 ^f	100.9-106.0 ^f	694.6 ^f	697.1 ^b	2.5 ^f
B-3	588.4 ^f	121.2 ^f	593.6-588.4 ^f	116.0-121.2 ^f	709.6 ^f	712.1 ^b	2.5 ^f
B-4	583.3 ^f	97.5 ^f	590.5-585.4 ^f	90.3-95.4 ^f	680.8 ^f	683.3 ^b	2.5 ^f
B-5	585.1 ^f	101 ^f	591.3-586.2 ^f	94.8-99.9 ^f	686.1 ^f	688.5 ^b	2.4 ^f
B-6	588 ^f	110 ^f	594.1-589.0 ^f	103.9-109.0 ^f	698.0 ^f	700.5 ^b	2.5 ^f
B-7	588.6 ^f	114 ^f	594.7-589.6 ^f	107.9-113.0 ^f	702.6 ^f	705.1 ^b	2.5 ^f
B-8	591 ^f	114 ^f	596.5-591.4 ^f	108.5-113.6 ^f	705.0 ^f	707.4 ^b	2.4 ^f
B-9	583.7 ^f	107 ^f	591.2-586.2 ^f	99.5-104.5 ^f	690.7 ^f	693.2 ^b	2.5 ^f
B-10	587.6 ^f	123.5 ^f	594.1-589.0 ^f	117.0-122.1 ^f	711.1 ^f	713.5 ^b	2.4 ^f
B-11	590.6 ^f	128 ^f	595.7-591.5 ^f	122.9-127.1 ^f	718.6 ^f	721.1 ^b	2.5 ^f
B-12	588.3 ^f	132.5 ^f	594.6-589.5 ^f	126.2-131.3 ^f	720.8 ^f	723.3 ^b	2.5 ^f
B-13	590.3 ^f	125.5 ^f	596.1-591.0 ^f	119.7-124.8 ^f	715.8 ^f	718.3 ^b	2.5 ^f
B-14	587.1 ^f	96.5 ^f	592.6-587.6 ^f	91.0-96.0 ^f	683.6 ^f	686.1 ^b	2.5 ^f
B-15	586 ^f	132.6 ^f	591.1-586.0 ^f	127.5-132.6 ^f	718.6 ^f	721.1 ^b	2.5 ^f
B-16	594.8 ^f	122.3 ^f	601.2-596.1 ^f	115.9-121.0 ^f	717.1 ^f	719.6 ^b	2.5 ^f
B-17	594.5 ^f	130 ^f	601.6-596.5 ^f	122.9-128.0 ^f	724.5 ^f	727.0 ^b	2.5 ^f
B-18	585.6 ^f	121 ^f	591.7-586.6 ^f	114.9-120.0 ^f	706.6 ^f	709.1 ^b	2.5 ^f

- a = From October 2006 monitoring event.
 b = Calculated value.
 c = From Well Completion Reports
 d = From September 1997 Permit Condition III.C.1.
 e = From Boring Logs.
 f = From Groundwater Monitoring Data (section E, Appendix E-1) Addendum, Citgo Lemont Refinery (Radian, 1997).

- amsl = Above Mean Sea Level
 bgs = Below Ground Surface
 ags = Above Ground Surface

**RENEWAL PART B PERMIT APPLICATION
VOLUME 1, SECTION E**

**Remove Tables E-7 through E-8
and replace with the attached Tables E-7 through E-8.**

Table E-7. Preparatory and Analytical Methods for Groundwater Samples

Parameter	Preparation		Analysis	
	Technique	Method	Technique	Method
Dissolved Arsenic	Acid Digestion	3005A, 3010A, 3015	ICPES/ICP-MS	6010B, 6020
Total Organic Carbon	NA	NA	Oxidation/IR	415.1
Total Organic Halogen	Adsorption/ Combustion	9020B	Titration	9020B
pH	NA	NA	Electrometric	Field Measurement
Specific Conductivity				
Temperature				
Turbidity				

ICPES = Inductively Coupled Plasma Emission Spectrometry
 ICP-MS = Inductively Coupled Plasma – Mass Spectrometry
 IR = Infrared Spectrometry NA = Not Applicable

Table E-8. Acceptance Criteria for QC Samples

Parameter	PQL (mg/L)	Precision (RPD)	Accuracy (%R)
Dissolved Arsenic	0.010	20	75-125
Total Organic Carbon	0.10	20	85-115
Total Organic Halogen	0.010	25	60-140
pH	0.1 SU	±0.1 SU	NA
Specific Conductivity	0.1 µmhos/cm	10	90-110
Temperature	0.1°C	10	NA
Turbidity	1 NTU	20	85-115

°C =Degrees Celsius
 %R =Percent Recovery
 mg/L =Milligrams per Liter
 µmhos/cm =Micromhos per centimeter
 NA =Not Applicable
 NTU =Nephelometric Turbidity Units
 PQL =Practical Quantitation Limit
 RPD =Relative Percent Difference
 SU =Standard Units

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LIST OF ACRONYMS AND ABBREVIATIONS

°C	Degrees Celsius (Centigrade)
%CV	Relative Standard Deviation
°F	Degrees Fahrenheit
1990 Decision Guide	<u>Illinois EPA RCRA Part B Permit Application Decision Guide (December 1990)</u>
2006 Decision Guide	<u>Illinois EPA RCRA Part B Permit Application Decision Guide (July 2006)</u>
2006 Checklist	<u>Illinois EPA RCRA Part B Hazardous Waste Permit Application Completeness and Technical Evaluation Checklist (July 2006)</u>
AAS	Atomic Absorption Spectrometry
AASHO	American Association of State Highway Officials
ACL	Alternate Concentration Level
Act	Illinois Compiled Statutes Environmental Safety Environmental Protection Act
AEL	Appropriate Exposure Limit
Agency	U.S./Illinois Environmental Protection Agency
amsl	Above mean sea level
ANPR	Advanced Notice of Proposed Rulemaking
AOC	Area of Concern
API	American Petroleum Institute
AST	Aboveground Storage Tank
ASTM	American Society for Testing and Materials
atm	Atmospheres
bb1	Barrels
bgs	Below ground surface
BTZ	Below Treatment Zone
bpd	Barrels per Day
BTEX	Benzene, Toluene, Ethylbenzene, And Xylene
BIF	Boilers and Industrial Furnace
BOD ₅	Five-Day Biological Oxygen Demand
BP	Boiling Point
BTC	Background Threshold Concentration
BTU	British Thermal Units
BTZ	Below Treatment Zone
C	Ceiling
CAA	Clean Air Act
CAAPP	Clean Air Act Permit Program
CAMU	Corrective Action Management Unit
CAS	Chemical Abstracts Service Registry
CBT	computer-based training

LIST OF ACRONYMS AND ABBREVIATIONS (cont.)

CCR	Current Conditions Report
CFR	Code of Federal Regulations
CMI	Corrective Measures Implementation
CMS	Corrective Measures Study
CO	Carbon Monoxide
COC	Contaminants of Concern
COD	Chemical Oxygen Demand
COLIWASA	Composite Liquid Waste Sampler
CSM	Conceptual Site Model
CSSO	Central Security Services Office
CV	Coefficient of Variation
CWA	Clean Water Act
DOT	Department of Transportation
DQL	Data Quality Level
DRO	Diesel-Range Organic
ECD	Electron Capture Detector
EEGL	Emergency Exposure Guidance Limit
EI	Environmental Indicator
E&I	Electrical and Instrument
EPA	Environmental Protection Agency
EQL	Estimated Quantitation Limit
ERPG	Emergency Response Planning Guidelines
ERT	Environmental Response Team
ELUC	Environmental Land Use Controls
FCC	Fluid Catalytic Cracking Unit
FCCU	Fluid Catalytic Cracking Unit
FEMA	Federal Emergency Management Agency
FID	Flame-Ionization Detector
FIRM	Flood Insurance Rate Map
FOIA	Freedom of Information Act
g	Gram
gal.	Gallon
GC	Gas Chromatography
GDU	Gasoline Desulfurization Unit
GPD	Gallons Per Day

LIST OF ACRONYMS AND ABBREVIATIONS (cont.)

GPRA	Government Performance and Results Act
GRO	Gasoline-Range Organic
GMZ	Groundwater Management Zone
HAZWOPER	Hazardous Waste Operations and Emergency Response
HBL	Health-Based Level
HDPE	High-Density Polyethylene
HEBCA	Heat Exchanger Bundle Cleaning Area
HEXB	Heat Exchanger Bundle(s)
HF	Hydrofluoric
HF alky	Hydrofluoric alkylation (neutralization basin)
hPa	HectoPascals
HPLC	High-Performance Liquid Chromatography
HSA	Hollow Stem Auger
HSWA	Hazardous and Solid Waste Amendments
HWMF	Hazardous Waste Management Facility
HWMU	Hazardous Waste Management Unit
HSS&E	Health, Safety, Security, and Environmental
IAC	Illinois Administrative Code
IBC	Intermediate Bulk Container
ICPES	Inductively Coupled Plasma Emission Spectrometry
ICP-MS	Inductively Coupled Plasma – Mass Spectrometry
ID	Identification
IDL	Instrument Detection Limit
IDLH	Extremely Dangerous to Life or Health
IDOT	Illinois Department of Transportation
IL ELAP	Illinois Environmental Laboratory Accreditation Program
Ill. Rev. Stat.	Illinois Revised Statute
Illinois EOU	Illinois Emergency Operations Unit
IPCB	Illinois Pollution Control Board
IR	Infrared Spectrometry
kPa	KiloPascals
lb.	Pound
lbs.	Pounds
LCS	Laboratory Control Sample
LDR	Land Disposal Restriction
LEL	Lower Explosive Limit
LIMS	Laboratory Information Management System
LOQ	Limit of Quantitation
LTA	Land Treatment Area
LTF	Land Treatment Facility
LTL	Lower Tolerance Limit

LIST OF ACRONYMS AND ABBREVIATIONS (cont.)

MDEA	Monodiethanol amine
MDL	Method Detection Limit
MEA	Monoethanol amine
mg/kg	Milligram/kilogram
Misc.	Miscellaneous
mL	Milliliter
MOSC	Mobile Oil Sludge Coking
mph	Miles per hour
MPRSA	Marine Protection, Research, and Sanctuaries Act
MS	Mass Spectrometry
MS	Matrix Spike
MSD	Matrix Spike Duplicate
MSDS	Material Safety Data Sheet
MTBE	Methy Tert-Butyl Ether
MTR	Minimum Technology Requirement
MW	Molecular Weight
NA	North America (or Not Applicable)
NACE	National Association of Corrosion Engineers
NAPL	Non-aqueous Phase Liquids
NCDC	National Climatic Data Center
NELAP	National Environmental Laboratory Accreditation Program
NESHAP	National Emission Standards for Hazardous Air Pollutants
NFA	No Further Action
NFPA	National Fire Prevention Association
NIOSH	National Institute for Occupational Safety and Health
NIST	National Institute of Standards and Testing
NP	Not Performed
NPDES	National Pollutant Discharge Elimination System
NRC	National Response Center
NTUS	Nephelometric Turbidity Units
OJT	On-the-Job Training
OPA	Oil Pollution Act
OSHA	Occupations Safety and Health Administration
Pa	Pascals
PAC	Powdered Activated Carbon
PAH	Polynuclear Aromatic Hydrocarbons
P.E.	Professional Engineer
PID	Photo Ionization Detector
PMP	Perimeter Monitoring Program
POC	Point of Compliance
PPB	Parts Per Billion
PPE	Personal Protective Equipment

LIST OF ACRONYMS AND ABBREVIATIONS (cont.)

ppm	Parts per million
ppm _v	Parts per million by volume
PQL	Practical Quantitation Limit
PSD	Prevention of Significant Deterioration
PVC	Polyvinyl Chloride
QA	Quality Assurance
QAPP	Quality Assurance Project Plan
QC	Quality Control
RAGS	<u>Risk Assessment Guidance for Superfund</u>
RCRA	Resource Conservation and Recovery Act
RCRIS	RCRA Information System
Refinery	Lemont, Illinois, Refinery
Renewal Application	RCRA Part B Permit Renewal Application
RFA	RCRA Facility Assessment
RFI	RCRA Facility Investigation
RGN	Reactivity Group Number
RO	Remediation Objective
RPD	Relative Percent Difference
SCBA	Self-Contained Breathing Apparatus
SCFPU	Special Coker Feed Preparation Unit
SDWA	Safe Drinking Water Act
SG	Specific Gravity
SOP	Standard Operating Procedure
SPCC	Spill Prevention, Control, and Countermeasures
SPEGL	Short-Term Public Emergency Guidance Level
SPLP	Synthetic Precipitation Leaching Procedure
SR	State Route
STEL	Short-Term Exposure Limit
SVOC	Semivolatile Organic Compound
SW-846	<i>Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods</i> (U.S. EPA, Office of Solid Waste, Third Edition)
SWMU	Solid Waste Management Unit
SWPPP	Stormwater Pollution Prevention Plan
TACO	Tiered Approach to Corrective Action Objectives
TCLP	Toxicity Characteristic Leaching Procedure
TLV	Threshold Limit Value
TOC	Total Organic Carbon
TOX	Total Organic Halides
TPH	Total Petroleum Hydrocarbons

LIST OF ACRONYMS AND ABBREVIATIONS (cont.)

TRPH	Total Recoverable Petroleum Hydrocarbons
TRMA	Three Rivers Manufacturers' Association
TSDF	Treatment, Storage, and Disposal Facility
TU	Temporary Unit
TWA	Time-Weighted Average
UEL	Upper Exposure Limit
ug	Micrograms
ug/kg	Microgram/kilogram
UHC	Underlying Hazardous Constituent
UIC	Underground Injection Control
USEPA	United States Environmental Protection Agency
UST	Underground Storage Tank
UTL	Upper Tolerance Limit
UTS	Universal Treatment Standard
UZM	Unsaturated Zone Monitoring
VCA	Voluntary Corrective Action
VHF	Very High Frequency
VOC	Volatile Organic Compound
VP	Vapor Pressure
VSI	Visual Site Inspection
WCSA	Waste Container Storage Area
WWTP	Wastewater Treatment Plant
WWTU	Wastewater Treatment Unit
ZOI	Zone of Incorporation

**RENEWAL PART B PERMIT APPLICATION
VOLUME 2, SECTION F**

**Remove pages F-1 through F-10
and replace with the attached pages F-1 through F-10.**

F PROCEDURES TO PREVENT HAZARDS

To maintain the necessary heightened security at the Refinery and to minimize the possibility of the release of information that could facilitate terrorist attacks on the Refinery or its personnel, the Refinery is requesting that certain parts of the Procedures to Prevent Hazards (Section F) be withheld from the public domain per 2 IAC 1828.401 and 35 IAC 130. A claim and justification letter for this exemption is provided in Appendix A.3.3. A copy of the “sanitized” version of this section that will be provided for public review is provided in Appendix F.

F.1 Security

The purposes of the Refinery’s security procedures, as they relate to both overall facility security and to RCRA-permitted unit security, are twofold: (1) to prevent the accidental or unknowing entry of persons or wildlife inside the boundaries of the Refinery; and (2) to minimize unauthorized entry inside the boundaries of the LTF.

To accomplish these purposes, the Refinery has enclosed the entire facility with a fence. The fence is posted with warning signs and security guards control access to plant entrances. In addition, roving security guards patrol the facility 24 hours per day. Figures B-2 through B-6 show the Refinery’s security facilities, such as fences and gates. Additionally, Figure B-10 is provided to offer more detailed descriptions of specific access points throughout the Refinery.

F.1.1 Waiver from the Security Requirements

The Refinery is not seeking a waiver from the security requirements; therefore, this section of the 2006 Decision Guide is not applicable.

F.1.2 24-Hour Surveillance System

The Refinery’s security force is on duty 24 hours per day and controls access points, patrols the facility, and monitors all aspects of security. There are various gates (see Figures B-2 through B-6 and Figure B-10) in the fence that surrounds the Refinery. These gates have locks and chains or are activated (i.e., opened and closed) electronically. Trained security personnel man any gate that is open. Visitors are allowed to enter the Refinery only after they have signed in, have met the Refinery’s safety requirements, and have received proper permission(s) for entry. Roving security guards patrol the Refinery property (including the LTF area) and the perimeter fence. Security cameras are present throughout the Refinery and are monitored by security personnel.

F.1.3 Barrier and Controlled Entry

A single road extending through the tank farm portion of the Refinery is the sole means of access to the LTF. Further, access to the LTF is controlled by an eight foot chain-link fence. The gates to the LTF are normally locked. Security personnel hold keys to these locks. Requests to open the gates are made to security personnel.

F.1.4 Warning Signs

Warning signs posted around the perimeter of the LTF and at gate entrances warn that only authorized personnel are allowed to enter the facility. These signs typically read "Danger – Unauthorized Personnel Keep Out". These signs are visible from any approach to the facility and are legible at a distance of at least 25 feet.

F.2 Inspection Requirements

The Refinery has developed written typical inspection schedules (presented in Tables F-1 through F-3) for the LTF and for the general Refinery area. These inspection schedules allow Refinery personnel to detect malfunctions, deteriorations, operator errors, or discharges that may cause or lead to releases of hazardous waste constituents to the environment or that may pose a threat to human health.

The inspection schedules cover pertinent monitoring equipment, safety and emergency equipment, security devices, and operational and structural equipment.

The frequency of inspection is based on regulatory requirements where specified, the expected rate of possible deterioration, and the probability of an environmental or human health incident if deterioration, malfunction, or operator error were to go unnoticed between inspections. The inspection frequencies discussed in this Renewal Application are typical inspection frequencies and may vary slightly at any time as determined by the Refinery's management and/or policy changes.

F.2.1 Inspection Log

Each inspection is recorded in an inspection log. Inspection logs are retained for three years from the date of inspection and typically include the following information on each of the facilities:

- Date of inspection.
- Time of inspection.
- Name of inspector.
- Notation of observations made.

- Date and nature of any repairs needed.
- Any other remedial action.

A Facility Inspection Form is provided in Appendix I.2.2.1 of this Renewal Application. This form will be completed to record observations and to document the need for corrective action (if necessary). In the event that corrective action is necessary, the inspector will immediately perform necessary repairs or complete a Refinery Work Notification Form that is included in the Refinery's SAP documentation to ensure that the necessary corrective procedures will be performed.

Appendix F.2.1 contains examples of other typical log sheets used for documenting inspections. These logs, or functional equivalents, are used during Refinery inspection activities.

F.2.1.1 Items Inspected

Items typically scheduled for regular inspection are presented in Tables F-1 through F-3 in the "Item to be Inspected" columns. These items include the following:

- The LTF's perimeter fence.
- Signs.
- Run-on/run-off control systems.
- The vegetative cap.
- Groundwater monitoring wells including guard posts, outer casing, locks, and surface pads/seals.
- Stormwater management system including the intermittent stream, culverts, grass waterways, and diversion channels.
- Survey benchmarks.
- Fire and emergency equipment including fire blankets, fire extinguishers, emergency lights, first aid kits, safety shower, eye wash, protective clothing, self-contained breathing apparatus, emergency generators, and fire trucks.
- Security equipment the Refinery fence, gates signs, and lighting.
- Communications equipment including pagers, base stations, portable radios, the emergency radio system, the control room radio system, strobe lights, and the alarm signal.

- Spill control equipment including the oil spill control trailer, the oil spill boat and boathouse, the canal dock storage building, and boom boxes.

F.2.1.2 Types of Problems

The potential problems for which the inspectors look during regular inspections are presented in Tables F-1 through F-3 in the “Inspect For” columns.

F.2.1.3 Inspection Frequency

Requirements regarding the typical frequency of inspections are presented in Tables F-1 through F-3 in the “Frequency of Inspection” columns. Justifications for the frequencies of inspections are presented in Table F-3.

F.2.2 Repair Log

Repairs of and/or remedial action performed in response to deterioration or malfunction of equipment or structures identified during Refinery inspections as described in Section F.2.1 are scheduled and recorded in a repair log. The repair log will include the following information for each repair made to the LTF during the post-closure period: (1) identification of the item needing repair and the problem identified during the inspection; (2) the date the problem was detected; (3) the timeframe for making the repair; (4) the name of the person making the repair; (5) notation of the observations made; and, (6) the nature and date of any repairs. A copy of the repair log is found in Appendix I.2.2.6.

F.2.2.1 Contents of Repair Log

The contents of the typical repair log identify the following:

- The item requiring repair.
- The identified problem.
- The date and time the problem was detected.
- The timeframe for making the repair.
- The name of the person making the repair.
- The nature of any repairs or remedial actions.
- The date and time of any repairs or remedial actions.
- Additional notation of observations made.

F.2.2.2 Repair Times

Most repairs occur immediately upon detection. Repairs that involve structural items, such as concrete pads, buildings, tanks, and dikes, may require the scheduling of outside contractors and therefore may take several days to complete. Repairs to equipment, such as pumps and gauges, may require ordering of parts and may therefore also take several days to complete.

In cases in which repairs are required, measures necessary to prevent an environmental or human health hazard are performed immediately.

F.2.3 Container and Container Storage Area Inspection

The Refinery does not currently operate any RCRA-permitted container storage areas and containers are not being used for greater than 90-day storage of hazardous wastes; therefore, this section is not applicable.

F.2.4 Tank System Inspection

The Refinery does not currently operate any RCRA-permitted tank systems; therefore, this section is not applicable.

F.3 Equipment Requirements

Equipment for internal communications, external communications, and fire control are appropriately located throughout the Refinery. Fire control facilities are shown in Figures B-2 and B-3 of this Renewal Application. Additionally, the Refinery's Integrated Contingency Plan (a standalone document) may be referenced for further information regarding available equipment.

F.3.1 Waiver

The Refinery is not seeking a waiver from the equipment requirement; therefore, this section is not applicable.

F.3.2 Internal Communications

The Lemont Refinery has established an emergency communications network capable of notifying individuals and coordinating activities with off-site and on-site emergency response organizations and includes 24-hour per day manning of communications links.

Internal communications at the Lemont Refinery are available using a variety of devices and systems. Refinery personnel have been instructed to dial "222" on the nearest telephone that is safe to use when an emergency situation is discovered. Two-way radios are issued to Refinery field personnel including Fire Department, emergency response, and security personnel. Cellular telephones are issued to key Refinery

personnel including Operations, Security, Maintenance, Environmental, and Safety staff. Emergency response and management employees carry pagers programmed to receive various group pages indicating different emergency conditions as well as the ability for individual paging.

The primary site for emergency communications coordination is the Central Security Services Office (CSSO), which is located in the Maintenance Building office area and is known as Base 8. As a backup, Base 6, which is located at the North Gate Guard Station (127th and New Avenue), can perform Base 8 functions.

Base 8 receives incoming emergency calls via the “222” telephone system and/or radio communications. Upon notification, Base 8 will make the appropriate notification to on-site personnel and will respond to requests for assistance from off-site responders.

In the event of an emergency, on-site personnel will be alerted to the situation based on several variable factors. These variables include:

- The type of incident (fire, hazardous materials release, bomb threat, etc.).
- The type and quantity of hazardous materials released, if applicable.
- The location of the incident within defined geographical areas of the Refinery (i.e., the South Plant, the Tank Farm Area, and the North Plant).
- The location of personnel relative to the incident.
- Weather conditions at the time of the incident.

Refinery personnel have developed a three-tiered plan to alert individuals on-site to the emergency situation. The tiers are referred to as Levels I, II, and III. Each level is based on the presumptive need to evacuate personnel given the variable factors cited previously. That is, Level I communications are based on the need to evacuate personnel in the immediate vicinity of the emergency, Level II is based on evacuation of an area larger than the immediate vicinity of the emergency situation, and Level III is based on evacuation of the entire Refinery.

Items used to alert on-site personnel include an alarm signal (i.e., a tone capable of being heard throughout the Refinery), the internal radio system, a public address system, and strobe lights.

Specific emergency notifications are as follows:

- Level I – The alarm signal will sound in 10 one-second blasts, an announcement of a Level I condition will be made over the Refinery’s internal

radio system, yellow strobe lights in the affected area will be activated, and red strobe lights at the main gate will be activated.

- Level II – The alarm signal will sound 10 one-second blasts, the alarm signal will repeat the 10 one-second blasts a second time, an announcement of a Level II emergency will be made over the radio system and public address system to include the nature of the emergency and its location, and strobe lights will be activated throughout the Refinery.
- Level III – The alarm signal will sound 10 one-second blasts three consecutive times, an announcement of a total evacuation will be made over the radio system and public address system, and strobe lights will be activated throughout the Refinery.

Because access to the Refinery's telephone system is not readily available at the LTF, a hand-held, two-way radio will be carried by at least one person whenever authorized individuals are present at the LTF. Persons who do not have direct access to a radio must be able to maintain visual and voice contact with personnel who have radios.

F.3.3 External Communications

The primary means of communication with off-site organizations and individuals is the Refinery's telephone system. Cellular phones carried by Operations, Maintenance, Environmental, and Safety personnel and are available to others to provide a backup system. Further, key Refinery employees carry pagers programmed to receive various group pages as well as having the capability for individual paging.

In major emergencies with potential off-site impacts, Refinery personnel can contact the Will County Emergency Management Agency who may activate their Dialogic system. This system is an automated telephone alert system that relays pre-recorded warnings to nearby residents and businesses giving instructions regarding the appropriate action to take to safeguard life and property.

The Lemont Refinery Fire Department has the ability to communicate with Mutual Aid Fire Departments on several very high frequency (VHF) frequencies during an emergency. Lemont Refinery command vehicles and boats are also equipped with marine radios enabling communication with the Coast Guard, Lock Master, and other waterborne vessels on the nearby canal.

In the unlikely event of an emergency occurring at the LTF, facts regarding the situation would be communicated via hand-held radio to the CSSO (Base 8). Base 8

personnel would then contact outside emergency response organizations, if appropriate and as necessary.

F.3.4 Water for Fire Control

The Refinery Fire Department is the responsible party in case of a fire at the Refinery. The Refinery has water at an adequate volume and pressure to supply a water stream to any emergency equipment that requires water. Water that can be used in case of a fire is available from fire hydrants located in multiple locations throughout the Refinery. Fire hydrants located just to the north of the LTF (i.e., between the LTF and the tank farm) would be utilized in the event of a fire emergency at the LTF. The Refinery also owns four fire engines capable of applying water and/or foam at the LTF.

A statement signed by Refinery personnel certifying that the Refinery has water available at an adequate volume and pressure for use during an emergency, is presented in Appendix F.3.4. The Refinery Fire Chief is responsible for ensuring that adequate water volume and pressure are maintained for emergency response activities, including fire control.

F.3.5 Testing and Maintenance of Emergency Equipment

Facility communications, alarm systems, fire protection equipment, spill control equipment, and decontamination equipment are subject to frequent and thorough inspection to ensure that they can adequately perform their functions to prevent and mitigate, if necessary, dangerous conditions. Inspections, tests, and maintenance are included in the inspection logs provided in Tables F-1 through F-3.

F.3.5.1 Equipment Testing

Emergency equipment is identified and specific testing and maintenance procedures are provided in Table F-2.

F.3.5.2 Schedule

A testing and inspection schedule for all emergency equipment is presented in Table F-2. Maintenance and repair activities not included as part of regular inspections are conducted as necessary as identified by the routine Refinery inspections described in Section F.2 and in Tables F-1 through F-3.

F.3.6 Aisle Space

The LTF is located away from Refinery operations and is not impacted by normal Refinery activities and traffic. The open area at the LTF provides sufficient access for the unobstructed movement of all required emergency personnel and equipment, if needed. The location of the LTF and the nearby roadway is shown in Figure E-3.

Adequate aisle space to provide unobstructed movement of emergency equipment and supplies is maintained, as appropriate, throughout the Refinery.

F.4 Preventive Procedures, Structures, and Equipment

This RCRA Part B Permit Application is solely for post-closure care at the LTF. Therefore, once final closure is completed, only minimal preventive procedures, structures, and equipment will be necessary.

F.4.1 Unloading Operations

Once final closure has been completed, loading or unloading of any hazardous or non-hazardous wastes at the LTF will not occur. Therefore, this section is not applicable.

F.4.2 Run-off

An Intermittent Stream/Stormwater Conveyance (SWMU 17) transports stormwater run-off from the property east of the LTF and the LTF to the stormwater basins. The stormwater flows from east to west at the LTF through an adjacent property before reaching the basins. Stream flow enters a man-made channel excavated into dolomite bedrock or of concrete construction, approximately 800 feet west of the LTF. Water in the ponds is treated at the Lemont Refinery's WWTP.

The Refinery has also implemented engineering controls in an effort to minimize solids transport from the LTF. These controls include grass-lined ditches and silt fences to control and remove suspended sediments.

F.4.3 Water Supplies

Any risk to water supplies due to release of hazardous waste or hazardous waste constituents is extremely low due to the following factors:

- The base of the former treatment zone is approximately 60 feet above the seasonal high water level elevation in the uppermost aquifer.
- The uppermost aquifer is separated from the treatment zone by a thick clay till unit.
- The ongoing groundwater monitoring program (designed to detect any release of hazardous waste or hazardous waste constituents) will continue during the closure and post-closure care period.
- Run-off from the LTF is treated at the Refinery's WWTP prior to being discharged into the Chicago Sanitary and Ship Canal.

F.4.4 Equipment and Power Failure

Consistent (daily) use of equipment and/or power is not required to maintain the LTF in the post-closure care phase. Appropriate equipment will be available for routine maintenance of the LTF during closure activities and during the post-closure care period from the Refinery or through contactors, as necessary.

F.4.5 Personnel Protection Equipment

After final closure of the LTF, hazardous wastes will be isolated from personnel by placement of the final cover system. In the unlikely event that the cover system is breached, standard personal protective equipment (PPE) will be required for any person(s) working at the LTF. Applicable personnel will be given training in safe handling of wastes and the use of protective equipment.

**RENEWAL PART B PERMIT APPLICATION
VOLUME 2, SECTION I**

**Remove pages I-1 through I-2
and replace with the attached pages I-1 through I-2.**

I. CLOSURE AND POST-CLOSURE REQUIREMENTS

This section of the Renewal Application presents the closure and post-closure care requirements for the LTF. The closure and post-closure requirements for the LTF have been developed in accordance with the outline and information requirements of Section I of the 2006 Decision Guide.

I.1 Closure Plan

The Lemont Refinery historically operated the LTF consisting of four separate LTAs. The four LTAs cover 13.5 acres at the Lemont Refinery. Area I (5.5 acres) opened in 1973. Area II (4.2 acres), Area III (1.2 acres), and Area IV (2.6 acres) opened in 1980. The LTAs were used for the treatment of API separator sludge (K051), a hazardous waste, until September 1981. After September 1981, non-hazardous wastes including clear well sludge, cooling tower sludge, heavy oil sludge, stormwater basin dredgings, and water/wastewater treatment sludges were treated at the LTF. The majority of the wastes treated in the LTF were stormwater basin dredgings and water/wastewater treatment sludges, with the API separator sludge reportedly making up only one percent of the total waste applied over time. The LTF was not used again until 1995 when non-hazardous wastes were applied. Since 1995, the LTF has been inactive.

The RCRA permitting process for the Lemont Refinery began in the early 1980's with the submittal of a RCRA Part A Permit Application to the USEPA. A RCRA Part B Permit Application was subsequently submitted to the Illinois EPA in 1996, and the Illinois EPA issued a RCRA Hazardous Waste Management Post-Closure Permit on September 18, 1997. This permit became effective on October 23, 1997, and is set to expire on October 23, 2007.

A permit modification request for designation of a CAMU at the LTF was submitted to the Illinois EPA in December 1997. At this time, this permit modification request has not yet been reviewed by the Agency. As a result, the Lemont Refinery has been operating under the Post-Closure Care Permit and has been conducting the associated post-closure care monitoring. The CAMU Permit Modification Request is included for reference purposes as Appendix 1.1.

1.1.1 Closure Performance Standard

This closure plan is designed to comply with the requirements of 35 IAC 724 Subpart G (closure and post-closure) and 35 IAC 724.380 (closure and post-closure of LTFs). Also the closure plan is designed to comply with applicable guidance related to closure of LTFs. The closure plan specifies closure of the LTF with a vegetative cap that performs the following functions:

- Minimizes the need for further maintenance.
- Stabilization of soils and immobilization of waste constituents.
- Controls, minimizes, or eliminates post-closure escape of hazardous waste, hazardous waste constituents, leachate, contaminated run-off, or hazardous decomposition products to groundwater, surface water, or the atmosphere.
- Complies with the closure requirements in 35 IAC 724 Subpart G and 35 IAC 724.380 (closure and post-closure requirements for land treatment units).

I.1.1.1 General Requirements

The objective of this closure plan is to specify the actions that the Lemont Refinery will take at the close of operations at the LTF to stabilize soil in the treatment zone. Stabilization in this closure plan should be taken to mean the establishment of a permanent vegetative cover and the long-term immobilization of the waste constituents within the treatment zone.

Activities that will be performed during the closure period that will (1) assist in stabilization, (2) minimize the need for post-closure maintenance and controls, and (3) minimize or eliminate, to the extent necessary to protect human health and the environment, the post-closure escape of hazardous constituents, contaminated run-off, and hazardous decomposition products to the groundwater, surface waters, or atmosphere include the following:

- Tilling and addition of fertilizer (if needed) to prepare for the establishment of the vegetative cover.
- Soil addition and/or grading as needed.
- pH and moisture control monitoring and adjustment (if needed).
- Maintenance of the run-on and run-off control systems.
- A green house study to select appropriate vegetative cover candidates.

I.1.1.2 Specific Requirements

The Lemont Refinery will follow the closure requirements for land treatment units specified in 35 IAC 724.380 to ensure protection of human health and the environment. Specifically, during the closure period, the facility will:

- Continue activities (including pH monitoring and adjustment if necessary) to maximize degradation, transformation, or immobilization of hazardous

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**Remove pages I-15 through I-24
and replace with the attached pages I-15 through I-24.**

be evaluated to determine horizontal flow direction and gradient. The velocity of groundwater flow will be estimated based on hydraulic gradient, estimated hydraulic conductivity, and estimated effective porosity of the uppermost aquifer.

Monitoring limits based on background values measured at UA-1 over the entire interim status period were calculated for pH, specific conductivity, TOC, and TOX. Interim status monitoring was performed using four replicate samples of each parameter. The monitoring limits are 95%/95% upper tolerance limits (UTLs) for the average of four groundwater results per sampling event. A lower tolerance limit (LTL) was also calculated for pH. These monitoring limits are displayed in Table I-4 as historical monitoring limits.

As part of the Renewal Application Process, tolerance limits were recalculated using data obtained from the Illinois EPA's groundwater monitoring database for the years 1998 through 2006. Based on statistical distributions of each data set, 95%/97.5% UTLs were recalculated for pH, specific conductivity, and TOC. Since dissolved arsenic was never detected, its tolerance limit was set to two times the practical quantitation limit given in Table E-8. Finally, because more than ninety percent of the TOX data set consisted of non-detected results, a Poisson Tolerance limit was calculated for this parameter. The recalculated monitoring limits are also presented in Table I-4. These recalculated monitoring limits replace the monitoring limits found in Appendix I.1.6-2.

These limits are appropriate to use as prediction bounds for averages of size four. That is, if the site concentrations follow the same distribution as the background concentrations, then an average of four samples is expected to fall below the limits shown above 95% of the time, with 97.5% confidence using the recalculated values. If fewer than four samples are taken, the exact probabilities change slightly. However, due to the small amount of within-well variability, these limits can be reasonably applied to a single sample. Thus, if a result falls outside the given bounds, one can be reasonably confident that the site concentrations differ from the background concentrations. If site concentrations are more variable than background concentrations, then it is more likely that the average will fall above the given limit.

Unsaturated Zone Monitoring

Sampling Locations

Soil core sample locations will be randomly selected as suggested in the USEPA Permit Guidance Manual on Unsaturated Zone Monitoring for Hazardous Land Treatment Units (USEPA, 1986). Soil-core sample locations will be staked and surveyed (including current elevation). The sample collection coordinate system to be used in

location selection is shown in the Unsaturated Zone Monitoring Plan and Addendum found in Appendix I.1.6-1. Soil core sampling locations for the last ten years of UZM monitoring can be seen in Figures I-1 and I-2.

Analytical Parameters

The soil samples collected every fifth annual monitoring event will be analyzed for the full Modified Skinner List found on Table I-5. Soil-core samples collected for all other events will be analyzed for the constituents listed in Table I-6. Table I-6 includes both Skinner and non-Skinner constituents that have been detected at the LTAs previously. Non-Skinner List constituents that are determined to be artifacts (laboratory, sampling, etc.) may be removed from the list.

Monitoring Frequency and Schedule

Soil-core monitoring will continue on an annual basis during the post-closure period. Eight BTZ soil cores will be collected annually from the four treatment cells (one sample per two acres). The soil-core sampling will take place during the fourth quarter.

Sampling Procedures

In accordance with the Unsaturated Zone Monitoring Plan and Addendum (Appendix I.1.6-1), eight BTZ samples will be collected annually from the four treatment cells (one sample per two acres). The BTZ samples will be collected from the interval of 60 to 72 inches below the original ground surface.

BTZ soil samples will be collected by direct push equipment or by a split spoon sampler driven or pushed through a hollow-stem auger. These sampling methods meet the data quality requirements for the sampling program. Equipment that penetrates the soil surface will be thoroughly decontaminated prior to collecting each sample.

For BTZ samples, two sample aliquots will be collected at each sampling location. The first aliquot of soil will be collected for analysis of VOCs and must be preserved chemically within forty-eight hours of collection. Preservation for VOC samples must be performed according to the specifications given in SW846 Method 5035 as detailed in Appendix I.1.5. The other soil-core aliquot, which will be sampled for metals, and SVOCs, will be thoroughly homogenized and placed in a pre-cleaned, 500-mL glass jar with a Teflon® lined lid. Soil sample containers will be placed on ice immediately following collection and will be shipped overnight delivery to an analytical laboratory for extraction and analysis.

When collecting, transporting, and storing soil samples, chain of custody procedures will be followed. After taking core samples, each core hole will be backfilled

with bentonite pellets, and a survey record will be kept of the location of the bore hole. Supplies required for soil-core sampling, decontaminating equipment, and for shipping samples are listed in Appendix I.1.5.

Data Evaluation

Following each monitoring event, monitoring data will be evaluated to determine whether there is a statistically significant change over background values. This determination will be made within sixty days after receipt of laboratory analytical results. Detected constituents will be compared to their specific monitoring limits as provided in Table I-7. If a constituent concentration is shown to be in excess of this limit, an evaluation will be performed to determine if this detection is from some source other than the unit, and if not, if the detection represents a statistically significant increase.

For soil-core samples, organic compound concentrations will be compared to the individual constituent's practical quantitation limit (PQL). The PQLs were originally based on the estimated quantitation limits (EQLs) provided in historical versions of the USEPA's SW-846. The recommended PQLs, shown in Table I-7, correspond to standard laboratory reporting limits. The proposed PQLs that are different from the historical EQLs are for analytes which laboratory testing has demonstrated to exhibit lower analytical sensitivity; and thus, are required to have higher reporting limits using standard methodologies. Also some of the analytes have PQLs listed as not available. For these analytes, if they are detected, the PQL will be the laboratory reporting limit.

The monitoring limits for inorganic constituents are the 95% upper confidence bounds on the 97.5th percentiles, also referred to as 95%/97.5% UTLs. The monitoring limits for inorganic constituents can be interpreted as follows: The monitoring limit for a given parameter represents the bound below which one can be 95% confident that 97.5% of background values fall for the given constituent. Thus any exceedance of the monitoring limit for an inorganic constituent provides evidence that on-site concentrations have increased above background levels. Individual inorganic analytical results will be compared to UTLs to determine whether the monitoring limit for those hazardous constituents has been exceeded.

Analytical results for the soil-core samples collected over the past ten years are located in Table I-8. These results were obtained from the Annual Unsaturated Monitoring Reports previously submitted to the Illinois EPA. The data has been evaluated in accordance with the above-mentioned procedure. Those results which have been found as statistically significant increases are highlighted.

1.2.4 Post-Closure Maintenance Plan

1.2.4.1 Procedures, Equipment, and Materials

The Lemont Refinery's Environmental Department will have inspection responsibility for the vegetative cover on the LTF and contiguous land areas during its post-closure care period. The inspection schedule outlined in Section 1.2.2 will be implemented with the objective of monitoring for and initiating repair of damage to the cover and contiguous land area.

Preventative and corrective action maintenance undertaken at the LTF may include repair of security control devices; benchmarks or monuments; erosion damage repair; correction of settlement, subsidence, and displacement; repair of the stormwater control system; well replacement; and mowing, fertilization, and other vegetative cover maintenance. Maintenance activities are expected to consist primarily of occasional site regrading and re-vegetation of erosion channels.

The rationale for the maintenance schedule related to specific items is provided with the discussion of each specific maintenance item in the subsections below.

Repair of Security Control Devices

Security control devices are frequently inspected. When the inspector finds that any signs are missing or unreadable; there are any holes in the fencing; there are any loose or bent fence posts; there are any inoperable gates; or, there are any missing or broken locks, the inspector immediately completes the Refinery Work Notification Form so that corrective action can be taken.

Repair of Benchmarks

In the event that the inspector finds an unreadable or inaccessible benchmark or monument, prompt corrective action must be taken. This will likely only require trimming around the benchmark or monument, but may require replacement of the benchmark or monument. If the inspector has reason to believe that the benchmark or monument has been tampered with or if a benchmark or monument must be replaced, a surveyor will be contracted to relocate or replace the benchmark or monument to the appropriate location.

Erosion Damage Repair

Corrective action of the vegetative cover will be initiated if more than ten percent of the cover area is devoid of vegetation or if erosion gullies or surface cracks more than 8-inches deep are observed. These areas will be repaired immediately with additional

soil meeting the specifications of the cover material, followed by seeding, and mulching, as necessary.

Correction of Settlement, Subsidence, and Displacement

Depressions from settlement found in the vegetative cover in excess of two feet per 100 feet will be repaired promptly. Repairs may include regrading and the addition of appropriate cover material which may be followed by fertilizing, seeding, and mulching, as necessary, to promote vegetative growth and to prevent erosion of the repaired area.

Mowing, Fertilization, and Other Vegetative Cover Maintenance

The vegetative cover selected will be naturally hardy and capable of reseeding itself; therefore, mowing will be performed only twice per year. Additional mowing may be performed during an unusual, accelerated growth season and/or to help control rodent and insect populations.

The initial vegetative cover will be fertilized. The fertilizer will supplement the existing topsoil nutrients (as determined by standard soil nutrient analysis). Subsequent fertilization will be performed only when dictated by similar soil testing and evaluation, which will be conducted as needed throughout the post-closure care period. Testing will be conducted if the area needing fertilization is greater than 0.2 acres in size.

After completing system repairs, inspection of the repaired area will be conducted monthly until repair of the condition has been fully established. If repairs are necessary at a time outside of the optimal growing season, temporary reseeding with winter plants or mulching will be conducted initially with reseeding of the preferred vegetation being conducted during the next appropriate season.

Repair of Run-On and Run-Off Control Structures

The relatively high elevation of the unit causes drainage to be directed away from the unit and that run-on is highly unlikely. Therefore, mitigation of a severe storm effect is not anticipated. Adequate maintenance of the vegetative cover will also ensure against severe storm effects such as erosion. To account for this possibility, however, a planned response of action to fill in and stabilize any erosion paths will be necessary. Follow-up reseeding, or possibly resodding depending on continuing climatic conditions, will be necessary to return the vegetative cover to its original stable state.

The inspector will initiate corrective action if there are any obstructions to flow, silt buildup in excess of 50 percent of design freeboard, erosion gullies, or if there is significant erosion (greater than ten percent of the area is devoid of vegetation). Possible

run-on/off system maintenance items may include regrading, removal of obstructions to flow or excessive siltation, repair or replacement of culverts, repair or replacement of erosion control matting or rip rap in the intermittent stream channel, addition of earthen materials to eliminate eroded areas, and revegetation.

Well Replacement

The need to redrill existing wells will be minimal, if necessary at all. If such a situation occurs, it will be more cost-effective to drill a new well adjacent to the out-of-service well than to repair the existing well. However, to adjust the monitoring program to variations in groundwater flow it is estimated that perhaps two wells may be redrilled throughout the post-closure care period. In addition, it is estimated that one new well will be needed due to obstruction, damage, or loss of borehole communication (i.e., caved-in pipe).

Routine maintenance jobs will be performed and will include as needed, annual, and every-fifth-year events, as itemized below:

- As needed – Pump maintenance.
- Every year – Lubricate well-casing cap and lubricate locks.
- Every five years – Repaint well casing, replace locks, and regrout well casing.

I.2.4.2 Rationale

The rationale for the maintenance schedule related to specific items is provided with the discussions of each maintenance item in Section I.2.4.1.

I.3 Survey Plat

I.3.1 Identify Units/Areas

A survey plat will be prepared and submitted no later than the submission of the certification of closure of the LTF. The survey plat will indicate the locations and dimensions of disposal areas at the LTF with respect to permanently surveyed benchmarks and the legal boundaries of the facility.

I.3.2 Notes on Plat

The plat will contain a prominently displayed note that states (1) that the land has been used to manage hazardous wastes and (2) the owner/operator's obligations to restrict disturbance of the units containing hazardous waste in accordance with applicable Subpart G regulations.

I.3.3 Certification of Plat

The survey plat will be prepared and certified by a registered Professional Land Surveyor per 35 IAC 702.126(d)(1).

I.3.4 Recording of Survey Plat

The survey plat will be filed with the zoning authority of the City of Lemont, Illinois, the Illinois EPA, and the land titles records.

I.3.5 Existing Facilities with Closed Disposal Units

No certified, closed RCRA disposal units are present at the Refinery.

I.4 Notice in Deed and Certification

I.4.1 Notice in Deed

After final closure has been certified, the person or office specified in the approved post-closure care plans must keep the plan during the remainder of the post-closure care period.

No later than 60 days after completion of the closure of the LTF, the Lemont Refinery will submit to the local zoning authority, or the authority with jurisdiction over local land use, and to the Illinois EPA a record of the type, location, and quantity of wastes disposed of within the LTF over the life of the permit.

Within 60 days after completion of the closure of the LTF, the Lemont Refinery will record, in accordance with Illinois law, a notation on the deed to the facility property – or on some other instrument that is normally examined during a title search – that will in perpetuity notify any potential purchaser of the property of the following:

- The land has been used to manage hazardous wastes.
- The land's use is restricted under 35 IAC 724.217(c).
- The survey plat and record of the type, location and quantity of hazardous wastes disposed of within the LTF have been filed with the Illinois EPA, the County Recorder, and any local zoning authority or authority with jurisdiction over land use. This plat must be prepared and certified by an independent, registered Professional Land Surveyor.
- For hazardous wastes disposed of prior to January 12, 1981, identify the type, location and quantity of the hazardous waste to the best of the owner or operators' knowledge and in accordance with any records the owner or operator has kept.

1.4.2 Certification of Notification

The Lemont Refinery will submit a signed certification to the Illinois EPA showing that it has recorded the notation, including a copy of the document in which the notation is placed.

1.4.3 Existing Facilities with Closed Units

No certified, closed RCRA disposal units are present at the Refinery.

1.5 Closure Cost Estimate

The estimated closure costs estimate for the LTF in 2006 dollars is included in Table I-9.

1.5.1 Third-Party Costs

The closure cost estimate is based on third-party costs and does not include the salvage value for resale of structures or equipment. The cost estimate assumes that work will be completed by an independent, third-party contractor hired by the Lemont Refinery.

1.5.2 Maximum Cost Estimate

The closure cost estimate provided in Table I-9 is calculated to cover the cost of closure when the cost of closure will be the greatest (e.g., when the maximum volume of waste is present).

1.5.3 Unit Costs

The estimate provided in Table I-9 includes unit costs for each closure activity. Unit costs for individual tasks are based on standard industry practices. Costs are calculated to cover maximum closure costs (i.e., when the maximum volume of waste is present.)

1.5.4 Annual Updates

The closure cost estimate will be updated annually using an inflation factor or by recalculating the maximum cost of closure in current dollars. A copy of each updated estimate will be provided to the Illinois EPA.

1.6 Financial Assurance Mechanism for Closure

Financial Assurance documentation for closure of the LTF is provided as Appendix I.6. The financial assurance documentation was prepared in accordance with 35 IAC 724.243(f). Financial assurance information will be reviewed annually and updated to reflect inflation or other changes as necessary.

I.7 Post-Closure Cost Estimate

The cost estimate for post-closure is presented in Table I-10 in 2006 dollars.

I.7.1 Third-Party Costs

The post-closure cost estimate is based on third-party costs and does not include the salvage value for resale of structures or equipment. The cost estimate assumes that work may be completed by an independent, third-party contractor hired by the Lemont Refinery.

I.7.2 Unit Costs

The estimate provided in Table I-10 includes unit costs for each post-closure activity. Cost estimates are provided for the groundwater monitoring program, soil-core sampling program, and maintenance of the LTF. Unit costs for individual tasks are based on industry standard practices.

I.7.3 Annual Cost Estimate

The calculated annual cost estimate for the post-closure period is \$157,499.

I.7.4 Post-Closure Cost Estimate

The total estimated cost for post-closure of the LTF is \$2,421,188. The total estimated cost of post-closure care for the LTF was estimated by calculating the net present value for 30 years of post-closure care at an estimated annual cost of \$157,499 and a five percent interest rate.

I.7.5 Annual Updates

The post-closure cost estimate will be updated annually using an inflation factor or by recalculating the maximum cost of closure in current dollars. A copy of each updated estimate will be provided to the Illinois EPA.

I.8 Financial Assurance Mechanism

Financial Assurance documentation for post-closure of the LTF is provided as Appendix I.6. The financial assurance documentation was prepared in accordance with 35 IAC 724.245(f). Financial assurance information will be reviewed annually and updated to reflect inflation or other changes as necessary.

I.9 Liability Requirements

I.9.1 Copies of Financial Assurance Documentation

As proof of the liability coverage required by 35 IAC 724.247, the following are included in Appendix I.6 of the Renewal Application: (1) Form IL 532 1602 LPC 261 rev. June 2003 completed by CITGO's Chief Financial Officer; (2) A copy of CITGO's

audited financial statements and independent auditor's opinion for the latest completed fiscal year; and, (3) a special report from CITGO's independent auditors.

I.9.2 Request for Variance

The required financial coverage has been provided and no request for variance from the requirements of 35 IAC 724.247 is required.

I.10 State Mechanisms

The State of Illinois has not assumed legal responsibility for compliance with closure, post-closure, or liability requirements for the LTF.

**RENEWAL PART B PERMIT APPLICATION
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**Remove Tables I-7 through I-9
and replace with the attached Tables I-7 through I-10.**

Table I-7. Complete Unsaturated Zone Monitoring Parameter List and Associated Monitoring Limits

Chemical	Monitoring	Chemical	Monitoring
Inorganics (mg/kg)		Semivolatile organic compounds (µg/kg)	
Antimony	6.69	<i>Acenaphthylene</i>	330
Arsenic	55.5	Anthracene	660
Barium	1028.00	Benzenethiol	3300
Beryllium	2.53	Benzo(a)anthracene	660
Cadmium	9.11	Benzo(b)fluoranthene	660
Chromium	368.00	Benzo(k)fluoranthene	660
Cobalt	60.10	<i>Benzo(g,h,i)perylene</i>	330
Lead	504.00	Benzo(a)pyrene	660
Mercury	0.90	Bis(2-ethylhexyl)phthalate	660
Nickel	138.00	Butyl benzyl phthalate	660
Selenium	0.56	Cresols (o, m, & p)	660
Vanadium	446.00	Chrysene	660
Volatile organic compounds (µg/kg)		Dibenz(a,h)acridine	330
<i>Acetone</i>	20.0	Dibenz(a,h)anthracene	660
Benzene	5	Dichlorobenzenes	660
<i>n-Butylbenzene</i>	5	Diethyl phthalate	660
sec-Butylbenzene	5	7,12-Dimethylbenz(a)anthracene	660
Carbon disulfide	5	2-4-Dimethylphenol	660
Chlorobenzene	5	Dimethyl phthalate	660
Chloroform	5	Di(n)butyl phthalate	660
1,2-Dichloroethane	5	2-4-Dinitrophenol	3300
1,4-Dioxane	500	Di(n)octyl phthalate	660
Ethyl benzene	5	Fluoranthene	660
Ethylene dibromide	10	<i>Flourene</i>	330
<i>4-Isopropyltoluene</i>	5	Indene	330
Methyl ethyl ketone	20.0	<i>Indeno(1,2,3-cd)pyrene</i>	330
<i>n-Propylbenzene</i>	5	Methyl chrysene	330
Styrene	5	1-Methylnaphthalene	660
Toluene	5	<i>2-Methylnaphthalene</i>	330
<i>1,3,5-Trimethylbenzene</i>	5	Naphthalene	660
<i>1,2,4-Trimethylbenzene</i>	5	4-Nitrophenol	3300
Xylene (total)	5	Phenanthrene	660
		Phenol	660
		Pyrene	660
		Pyridine	660
		Quinoline	330

Table I-8. Summary of Soil Analytical Data for Unsaturated Zone Monitoring – Years 1-10

Sample ID	Date	Constituent	Units	Reporting Limit	Monitoring Limit	Result	Flag
SC-009	Nov-98	Acetone	ug/kg	20	20	ND	
SC-009	Nov-98	Benzene	ug/kg	5	5	ND	
SC-009	Nov-98	n-Butylbenzene	ug/kg	5	5	ND	
SC-009	Nov-98	sec-Butylbenzene	ug/kg	5	5	ND	
SC-009	Nov-98	Ethylbenzene	ug/kg	5	5	ND	
SC-009	Nov-98	4-Isopropyltoluene (p-Isopropyltoluene)	ug/kg	5	5	ND	
SC-009	Nov-98	n-Propylbenzene	ug/kg	5	5	ND	
SC-009	Nov-98	Toluene	ug/kg	5	5	ND	
SC-009	Nov-98	1,2,4-Trimethylbenzene	ug/kg	5	5	ND	
SC-009	Nov-98	1,3,5-Trimethylbenzene	ug/kg	5	5	ND	
SC-009	Nov-98	Xylenes	ug/kg	5	5	ND	
SC-009	Nov-98	2-Butanone (MEK)	ug/kg	20	20	ND	
SC-009	Nov-98	Acenaphthylene	ug/kg	330	330	ND	
SC-009	Nov-98	Anthracene	ug/kg	330	660	ND	
SC-009	Nov-98	Benzo(a)anthracene	ug/kg	330	660	ND	
SC-009	Nov-98	Benzo(g,h,i)perylene	ug/kg	330	330	ND	
SC-009	Nov-98	Butyl benzyl phthalate	ug/kg	330	660	ND	
SC-009	Nov-98	Chrysene	ug/kg	330	660	ND	
SC-009	Nov-98	Di-n-octyl phthalate	ug/kg		660	85	J
SC-009	Nov-98	Dibenz(a,h)anthracene	ug/kg	330	660	ND	
SC-009	Nov-98	Fluorene	ug/kg	330	330	ND	
SC-009	Nov-98	Indeno(1,2,3-cd)pyrene	ug/kg	330	330	ND	
SC-009	Nov-98	Methyl Chrysene (6-Methylchrysene)	ug/kg	330	330	ND	
SC-009	Nov-98	1-Methylnaphthalene	ug/kg	330	660	ND	
SC-009	Nov-98	2-Methylnaphthalene	ug/kg	330	330	ND	
SC-009	Nov-98	Naphthalene	ug/kg	330	660	ND	
SC-009	Nov-98	Phenanthrene	ug/kg	330	660	ND	

Table I-8. Summary of Soil Analytical Data for Unsaturated Zone Monitoring – Years 1-10 (continued)

Sample ID	Date	Constituent	Units	Reporting Limit	Monitoring Limit	Result	Flag
SC-009	Nov-98	Pyrene	ug/kg	330	660	ND	
SC-009	Nov-98	Antimony	mg/kg	1	6.69	ND	
SC-009	Nov-98	Arsenic	mg/kg		55.5	10.2	
SC-009	Nov-98	Barium	mg/kg		1028	86.2	
SC-009	Nov-98	Beryllium	mg/kg		2.53	0.83	
SC-009	Nov-98	Cadmium	mg/kg	0.5	9.11	ND	
SC-009	Nov-98	Chromium	mg/kg		368	22.6	
SC-009	Nov-98	Cobalt	mg/kg		60.1	11	
SC-009	Nov-98	Lead	mg/kg		504	15.4	
SC-009	Nov-98	Mercury	mg/kg	0.033	0.9	ND	
SC-009	Nov-98	Nickel	mg/kg		138	25.7	
SC-009	Nov-98	Selenium	mg/kg	0.5	0.56	ND	
SC-009	Nov-98	Vanadium	mg/kg		446	28.4	
SC-010	Nov-98	Acetone	ug/kg	20	20	ND	
SC-010	Nov-98	Benzene	ug/kg	5	5	ND	
SC-010	Nov-98	n-Butylbenzene	ug/kg	5	5	ND	
SC-010	Nov-98	sec-Butylbenzene	ug/kg	5	5	ND	
SC-010	Nov-98	Ethylbenzene	ug/kg	5	5	ND	
SC-010	Nov-98	4-Isopropyltoluene (p-Isopropyltoluene)	ug/kg	5	5	ND	
SC-010	Nov-98	n-Propylbenzene	ug/kg	5	5	ND	
SC-010	Nov-98	Toluene	ug/kg	5	5	ND	
SC-010	Nov-98	1,2,4-Trimethylbenzene	ug/kg		5	0.11	J
SC-010	Nov-98	1,3,5-Trimethylbenzene	ug/kg	5	5	ND	
SC-010	Nov-98	Xylenes	ug/kg	5	5	ND	
SC-010	Nov-98	2-Butanone (MEK)	ug/kg	20	20	ND	
SC-010	Nov-98	Acenaphthylene	ug/kg	330	330	ND	
SC-010	Nov-98	Anthracene	ug/kg	330	660	ND	
SC-010	Nov-98	Benzo(a)anthracene	ug/kg	330	660	ND	
SC-010	Nov-98	Benzo(g,h,i)perylene	ug/kg	330	330	ND	

Table I-8. Summary of Soil Analytical Data for Unsaturated Zone Monitoring – Years 1-10 (continued)

Sample ID	Date	Constituent	Units	Reporting Limit	Monitoring Limit	Result	Flag
SC-010	Nov-98	Butyl benzyl phthalate	ug/kg	330	660	ND	
SC-010	Nov-98	Chrysene	ug/kg	330	660	ND	
SC-010	Nov-98	Di-n-octyl phthalate	ug/kg	330	660	ND	
SC-010	Nov-98	Dibenz(a,h)anthracene	ug/kg	330	660	ND	
SC-010	Nov-98	Fluorene	ug/kg	330	330	ND	
SC-010	Nov-98	Indeno(1,2,3-cd)pyrene	ug/kg	330	330	ND	
SC-010	Nov-98	Methyl Chrysene (6-Methylchrysene)	ug/kg	330	330	ND	
SC-010	Nov-98	1-Methylnaphthalene	ug/kg	330	660	ND	
SC-010	Nov-98	2-Methylnaphthalene	ug/kg	330	330	ND	
SC-010	Nov-98	Naphtalene	ug/kg	330	660	ND	
SC-010	Nov-98	Phenanthrene	ug/kg	330	660	ND	
SC-010	Nov-98	Pyrene	ug/kg	330	660	ND	
SC-010	Nov-98	Antimony	mg/kg	1	6.69	ND	
SC-010	Nov-98	Arsenic	mg/kg		55.5	7	
SC-010	Nov-98	Barium	mg/kg		1028	47.7	
SC-010	Nov-98	Beryllium	mg/kg		2.53	0.61	
SC-010	Nov-98	Cadmium	mg/kg	0.5	9.11	ND	
SC-010	Nov-98	Chromium	mg/kg		368	14.8	
SC-010	Nov-98	Cobalt	mg/kg		60.1	9.1	
SC-010	Nov-98	Lead	mg/kg		504	10.3	
SC-010	Nov-98	Mercury	mg/kg	0.033	0.9	ND	
SC-010	Nov-98	Nickel	mg/kg		138	21.8	
SC-010	Nov-98	Selenium	mg/kg	0.5	0.56	ND	
SC-010	Nov-98	Vanadium	mg/kg		446	19.3	
SC-010-Duplicate	Nov-98	Acetone	ug/kg	20	20	ND	
SC-010-Duplicate	Nov-98	Benzene	ug/kg	5	5	ND	
SC-010-Duplicate	Nov-98	n-Butylbenzene	ug/kg	5	5	0.21	J
SC-010-Duplicate	Nov-98	sec-Butylbenzene	ug/kg	5	5	ND	
SC-010-Duplicate	Nov-98	Ethylbenzene	ug/kg	5	5	ND	

Table I-8. Summary of Soil Analytical Data for Unsaturated Zone Monitoring – Years 1-10 (continued)

Sample ID	Date	Constituent	Units	Reporting Limit	Monitoring Limit	Result	Flag
SC-010-Duplicate	Nov-98	4-Isopropyltoluene (p-Isopropyltoluene)	ug/kg	5	5	0.18	J
SC-010-Duplicate	Nov-98	n-Propylbenzene	ug/kg	5	5	0.31	J
SC-010-Duplicate	Nov-98	Toluene	ug/kg	5	5	ND	
SC-010-Duplicate	Nov-98	1,2,4-Trimethylbenzene	ug/kg	5	5	1.5	J
SC-010-Duplicate	Nov-98	1,3,5-Trimethylbenzene	ug/kg	5	5	0.42	J
SC-010-Duplicate	Nov-98	Xylenes	ug/kg	5	5	ND	
SC-010-Duplicate	Nov-98	2-Butanone (MEK)	ug/kg	20	20	ND	
SC-010-Duplicate	Nov-98	Acenaphthylene	ug/kg	330	330	ND	
SC-010-Duplicate	Nov-98	Anthracene	ug/kg	330	660	ND	
SC-010-Duplicate	Nov-98	Benzo(a)anthracene	ug/kg	330	660	ND	
SC-010-Duplicate	Nov-98	Benzo(g,h,i)perylene	ug/kg	330	330	ND	
SC-010-Duplicate	Nov-98	Butyl benzyl phthalate	ug/kg	330	660	ND	
SC-010-Duplicate	Nov-98	Chrysene	ug/kg	330	660	ND	
SC-010-Duplicate	Nov-98	Di-n-octyl phthalate	ug/kg	330	660	ND	
SC-010-Duplicate	Nov-98	Dibenz(a,h)anthracene	ug/kg	330	660	ND	
SC-010-Duplicate	Nov-98	Fluorene	ug/kg	330	330	ND	
SC-010-Duplicate	Nov-98	Indeno(1,2,3-cd)pyrene	ug/kg	330	330	ND	
SC-010-Duplicate	Nov-98	Methyl Chrysene (6-Methylchrysene)	ug/kg	330	330	ND	
SC-010-Duplicate	Nov-98	1-Methylnaphthalene	ug/kg	330	660	ND	
SC-010-Duplicate	Nov-98	2-Methylnaphthalene	ug/kg	330	330	ND	
SC-010-Duplicate	Nov-98	Naphthalene	ug/kg	330	660	ND	
SC-010-Duplicate	Nov-98	Phenanthrene	ug/kg	330	660	ND	
SC-010-Duplicate	Nov-98	Pyrene	ug/kg	330	660	ND	
SC-010-Duplicate	Nov-98	Antimony	mg/kg	1	6.69	ND	
SC-010-Duplicate	Nov-98	Arsenic	mg/kg		55.5	7.6	
SC-010-Duplicate	Nov-98	Barium	mg/kg		1028	49.7	
SC-010-Duplicate	Nov-98	Beryllium	mg/kg		2.53	0.54	
SC-010-Duplicate	Nov-98	Cadmium	mg/kg	0.5	9.11	ND	
SC-010-Duplicate	Nov-98	Chromium	mg/kg		368	14.6	

Table I-8. Summary of Soil Analytical Data for Unsaturated Zone Monitoring – Years 1-10 (continued)

Sample ID	Date	Constituent	Units	Reporting Limit	Monitoring Limit	Result	Flag
SC-010-Duplicate	Nov-98	Cobalt	mg/kg		60.1	9.2	
SC-010-Duplicate	Nov-98	Lead	mg/kg		504	10.8	
SC-010-Duplicate	Nov-98	Mercury	mg/kg	0.033	0.9	ND	
SC-010-Duplicate	Nov-98	Nickel	mg/kg		138	22.8	
SC-010-Duplicate	Nov-98	Selenium	mg/kg	0.5	0.56	ND	
SC-010-Duplicate	Nov-98	Vanadium	mg/kg		446	18.3	
SC-011	Nov-98	Acetone	ug/kg	20	20	ND	
SC-011	Nov-98	Benzene	ug/kg	5	5	ND	
SC-011	Nov-98	n-Butylbenzene	ug/kg	5	5	ND	
SC-011	Nov-98	sec-Butylbenzene	ug/kg	5	5	ND	
SC-011	Nov-98	Ethylbenzene	ug/kg	5	5	ND	
SC-011	Nov-98	4-Isopropyltoluene (p-Isopropyltoluene)	ug/kg	5	5	ND	
SC-011	Nov-98	n-Propylbenzene	ug/kg	5	5	ND	
SC-011	Nov-98	Toluene	ug/kg	5	5	ND	
SC-011	Nov-98	1,2,4-Trimethylbenzene	ug/kg	5	5	0.14	J
SC-011	Nov-98	1,3,5-Trimethylbenzene	ug/kg	5	5	ND	
SC-011	Nov-98	Xylenes	ug/kg	5	5	ND	
SC-011	Nov-98	2-Butanone (MEK)	ug/kg	20	20	ND	
SC-011	Nov-98	Acenaphthylene	ug/kg	330	330	ND	
SC-011	Nov-98	Anthracene	ug/kg	330	660	ND	
SC-011	Nov-98	Benzo(a)anthracene	ug/kg	330	660	ND	
SC-011	Nov-98	Benzo(g,h,i)perylene	ug/kg	330	330	ND	
SC-011	Nov-98	Butyl benzyl phthalate	ug/kg	330	660	ND	
SC-011	Nov-98	Chrysene	ug/kg	330	660	ND	
SC-011	Nov-98	Di-n-octyl phthalate	ug/kg	330	660	ND	
SC-011	Nov-98	Dibenz(a,h)anthracene	ug/kg	330	660	ND	
SC-011	Nov-98	Fluorene	ug/kg	330	330	ND	
SC-011	Nov-98	Indeno(1,2,3-cd)pyrene	ug/kg	330	330	ND	
SC-011	Nov-98	Methyl Chrysene (6-Methylchrysene)	ug/kg	330	330	ND	

Table I-8. Summary of Soil Analytical Data for Unsaturated Zone Monitoring – Years 1-10 (continued)

Sample ID	Date	Constituent	Units	Reporting Limit	Monitoring Limit	Result	Flag
SC-011	Nov-98	1-Methylnaphthalene	ug/kg	330	660	ND	
SC-011	Nov-98	2-Methylnaphthalene	ug/kg	330	330	ND	
SC-011	Nov-98	Naphthalene	ug/kg	330	660	ND	
SC-011	Nov-98	Phenanthrene	ug/kg	330	660	ND	
SC-011	Nov-98	Pyrene	ug/kg	330	660	ND	
SC-011	Nov-98	Antimony	mg/kg	1	6.69	ND	
SC-011	Nov-98	Arsenic	mg/kg		55.5	9.2	
SC-011	Nov-98	Barium	mg/kg		1028	43.6	
SC-011	Nov-98	Beryllium	mg/kg		2.53	0.68	
SC-011	Nov-98	Cadmium	mg/kg	0.5	9.11	ND	
SC-011	Nov-98	Chromium	mg/kg		368	18.3	
SC-011	Nov-98	Cobalt	mg/kg		60.1	10.7	
SC-011	Nov-98	Lead	mg/kg		504	14	
SC-011	Nov-98	Mercury	mg/kg	0.033	0.9	ND	
SC-011	Nov-98	Nickel	mg/kg		138	29.9	
SC-011	Nov-98	Selenium	mg/kg	0.5	0.56	ND	
SC-011	Nov-98	Vanadium	mg/kg		446	21.7	
SC-012	Nov-98	Acetone	ug/kg	20	20	41	
SC-012	Nov-98	Benzene	ug/kg	5	5	ND	
SC-012	Nov-98	n-Butylbenzene	ug/kg	5	5	ND	
SC-012	Nov-98	sec-Butylbenzene	ug/kg	5	5	ND	
SC-012	Nov-98	Ethylbenzene	ug/kg	5	5	ND	
SC-012	Nov-98	4-Isopropyltoluene (p-Isopropyltoluene)	ug/kg	5	5	ND	
SC-012	Nov-98	n-Propylbenzene	ug/kg	5	5	ND	
SC-012	Nov-98	Toluene	ug/kg	5	5	ND	
SC-012	Nov-98	1,2,4-Trimethylbenzene	ug/kg	5	5	0.25	J
SC-012	Nov-98	1,3,5-Trimethylbenzene	ug/kg	5	5	ND	
SC-012	Nov-98	Xylenes	ug/kg	5	5	ND	
SC-012	Nov-98	2-Butanone (MEK)	ug/kg	20	20	ND	

Table I-8. Summary of Soil Analytical Data for Unsaturated Zone Monitoring – Years 1-10 (continued)

Sample ID	Date	Constituent	Units	Reporting Limit	Monitoring Limit	Result	Flag
SC-012	Nov-98	Acenaphthylene	ug/kg	330	330	ND	
SC-012	Nov-98	Anthracene	ug/kg	330	660	ND	
SC-012	Nov-98	Benzo(a)anthracene	ug/kg	330	660	ND	
SC-012	Nov-98	Benzo(g,h,i)perylene	ug/kg	330	330	ND	
SC-012	Nov-98	Butyl benzyl phthalate	ug/kg	330	660	ND	
SC-012	Nov-98	Chrysene	ug/kg	330	660	ND	
SC-012	Nov-98	Di-n-octyl phthalate	ug/kg	330	660	99	J
SC-012	Nov-98	Dibenz(a,h)anthracene	ug/kg	330	660	ND	
SC-012	Nov-98	Fluorene	ug/kg	330	330	ND	
SC-012	Nov-98	Indeno(1,2,3-cd)pyrene	ug/kg	330	330	ND	
SC-012	Nov-98	Methyl Chrysene (6-Methylchrysene)	ug/kg	330	330	ND	
SC-012	Nov-98	1-Methylnaphthalene	ug/kg	330	660	ND	
SC-012	Nov-98	2-Methylnaphthalene	ug/kg	330	330	ND	
SC-012	Nov-98	Naphthalene	ug/kg	330	660	ND	
SC-012	Nov-98	Phenanthrene	ug/kg	330	660	ND	
SC-012	Nov-98	Pyrene	ug/kg	330	660	ND	
SC-012	Nov-98	Antimony	mg/kg	1	6.69	ND	
SC-012	Nov-98	Arsenic	mg/kg		55.5	7.5	
SC-012	Nov-98	Barium	mg/kg		1028	39	
SC-012	Nov-98	Beryllium	mg/kg		2.53	0.6	
SC-012	Nov-98	Cadmium	mg/kg	0.5	9.11	ND	
SC-012	Nov-98	Chromium	mg/kg		368	16.5	
SC-012	Nov-98	Cobalt	mg/kg		60.1	8.9	
SC-012	Nov-98	Lead	mg/kg		504	10.2	
SC-012	Nov-98	Mercury	mg/kg	0.033	0.9	ND	
SC-012	Nov-98	Nickel	mg/kg		138	22.7	
SC-012	Nov-98	Selenium	mg/kg	0.5	0.56	ND	
SC-012	Nov-98	Vanadium	mg/kg		446	20	
SC-013	Nov-98	Acetone	ug/kg	20	20	ND	

Table I-8. Summary of Soil Analytical Data for Unsaturated Zone Monitoring – Years 1-10 (continued)

Sample ID	Date	Constituent	Units	Reporting Limit	Monitoring Limit	Result	Flag
SC-013	Nov-98	Benzene	ug/kg	5	5	ND	
SC-013	Nov-98	n-Butylbenzene	ug/kg	5	5	ND	
SC-013	Nov-98	sec-Butylbenzene	ug/kg	5	5	ND	
SC-013	Nov-98	Ethylbenzene	ug/kg	5	5	ND	
SC-013	Nov-98	4-Isopropyltoluene (p-Isopropyltoluene)	ug/kg	5	5	ND	
SC-013	Nov-98	n-Propylbenzene	ug/kg	5	5	ND	
SC-013	Nov-98	Toluene	ug/kg	5	5	ND	
SC-013	Nov-98	1,2,4-Trimethylbenzene	ug/kg	5	5	ND	
SC-013	Nov-98	1,3,5-Trimethylbenzene	ug/kg	5	5	ND	
SC-013	Nov-98	Xylenes	ug/kg	5	5	ND	
SC-013	Nov-98	2-Butanone (MEK)	ug/kg	20	20	ND	
SC-013	Nov-98	Acenaphthylene	ug/kg	330	330	ND	
SC-013	Nov-98	Anthracene	ug/kg	330	660	ND	
SC-013	Nov-98	Benzo(a)anthracene	ug/kg	330	660	ND	
SC-013	Nov-98	Benzo(g,h,i)perylene	ug/kg	330	330	ND	
SC-013	Nov-98	Butyl benzyl phthalate	ug/kg	330	660	ND	
SC-013	Nov-98	Chrysene	ug/kg	330	660	ND	
SC-013	Nov-98	Di-n-octyl phthalate	ug/kg	330	660	99	J
SC-013	Nov-98	Dibenz(a,h)anthracene	ug/kg	330	660	ND	
SC-013	Nov-98	Fluorene	ug/kg	330	330	ND	
SC-013	Nov-98	Indeno(1,2,3-cd)pyrene	ug/kg	330	330	ND	
SC-013	Nov-98	Methyl Chrysene (6-Methylchrysene)	ug/kg	330	330	ND	
SC-013	Nov-98	1-Methylnaphthalene	ug/kg	330	660	ND	
SC-013	Nov-98	2-Methylnaphthalene	ug/kg	330	330	ND	
SC-013	Nov-98	Naphthalene	ug/kg	330	660	ND	
SC-013	Nov-98	Phenanthrene	ug/kg	330	660	ND	
SC-013	Nov-98	Pyrene	ug/kg	330	660	ND	
SC-013	Nov-98	Antimony	mg/kg	1	6.69	ND	
SC-013	Nov-98	Arsenic	mg/kg		55.5	7.3	

Table I-8. Summary of Soil Analytical Data for Unsaturated Zone Monitoring – Years 1-10 (continued)

Sample ID	Date	Constituent	Units	Reporting Limit	Monitoring Limit	Result	Flag
SC-013	Nov-98	Barium	mg/kg		1028	49.4	
SC-013	Nov-98	Beryllium	mg/kg		2.53	0.52	
SC-013	Nov-98	Cadmium	mg/kg	0.5	9.11	ND	
SC-013	Nov-98	Chromium	mg/kg		368	13.7	
SC-013	Nov-98	Cobalt	mg/kg		60.1	6.9	
SC-013	Nov-98	Lead	mg/kg		504	8.4	
SC-013	Nov-98	Mercury	mg/kg	0.033	0.9	ND	
SC-013	Nov-98	Nickel	mg/kg		138	18.4	
SC-013	Nov-98	Selenium	mg/kg	0.5	0.56	ND	
SC-013	Nov-98	Vanadium	mg/kg		446	17.2	
SC-014	Nov-98	Acetone	ug/kg	20	20	ND	
SC-014	Nov-98	Benzene	ug/kg	5	5	ND	
SC-014	Nov-98	n-Butylbenzene	ug/kg	5	5	ND	
SC-014	Nov-98	sec-Butylbenzene	ug/kg	5	5	ND	
SC-014	Nov-98	Ethylbenzene	ug/kg	5	5	ND	
SC-014	Nov-98	4-Isopropyltoluene (p-Isopropyltoluene)	ug/kg	5	5	ND	
SC-014	Nov-98	n-Propylbenzene	ug/kg	5	5	ND	
SC-014	Nov-98	Toluene	ug/kg	5	5	ND	
SC-014	Nov-98	1,2,4-Trimethylbenzene	ug/kg	5	5	0.10	J
SC-014	Nov-98	1,3,5-Trimethylbenzene	ug/kg	5	5	ND	
SC-014	Nov-98	Xylenes	ug/kg	5	5	ND	
SC-014	Nov-98	2-Butanone (MEK)	ug/kg	20	20	ND	
SC-014	Nov-98	Acenaphthylene	ug/kg	330	330	ND	
SC-014	Nov-98	Anthracene	ug/kg	330	660	ND	
SC-014	Nov-98	Benzo(a)anthracene	ug/kg	330	660	ND	
SC-014	Nov-98	Benzo(g,h,i)perylene	ug/kg	330	330	ND	
SC-014	Nov-98	Butyl benzyl phthalate	ug/kg	330	660	ND	
SC-014	Nov-98	Chrysene	ug/kg	330	660	ND	
SC-014	Nov-98	Di-n-octyl phthalate	ug/kg	330	660	ND	

Table I-8. Summary of Soil Analytical Data for Unsaturated Zone Monitoring – Years 1-10 (continued)

Sample ID	Date	Constituent	Units	Reporting Limit	Monitoring Limit	Result	Flag
SC-014	Nov-98	Dibenz(a,h)anthracene	ug/kg	330	660	ND	
SC-014	Nov-98	Fluorene	ug/kg	330	330	ND	
SC-014	Nov-98	Indeno(1,2,3-cd)pyrene	ug/kg	330	330	ND	
SC-014	Nov-98	Methyl Chrysene (6-Methylchrysene)	ug/kg	330	330	ND	
SC-014	Nov-98	1-Methylnaphthalene	ug/kg	330	660	ND	
SC-014	Nov-98	2-Methylnaphthalene	ug/kg	330	330	ND	
SC-014	Nov-98	Naphthalene	ug/kg	330	660	ND	
SC-014	Nov-98	Phenanthrene	ug/kg	330	660	ND	
SC-014	Nov-98	Pyrene	ug/kg	330	660	ND	
SC-014	Nov-98	Antimony	mg/kg	1	6.69	ND	
SC-014	Nov-98	Arsenic	mg/kg		55.5	4.4	
SC-014	Nov-98	Barium	mg/kg		1028	40.8	
SC-014	Nov-98	Beryllium	mg/kg		2.53	0.5	
SC-014	Nov-98	Cadmium	mg/kg	0.5	9.11	ND	
SC-014	Nov-98	Chromium	mg/kg		368	13.3	
SC-014	Nov-98	Cobalt	mg/kg		60.1	4.2	
SC-014	Nov-98	Lead	mg/kg		504	6	
SC-014	Nov-98	Mercury	mg/kg	0.033	0.9	ND	
SC-014	Nov-98	Nickel	mg/kg		138	14.8	
SC-014	Nov-98	Selenium	mg/kg	0.5	0.56	ND	
SC-014	Nov-98	Vanadium	mg/kg		446	15.5	
SC-015	Nov-98	Acetone	ug/kg	20	20	ND	
SC-015	Nov-98	Benzene	ug/kg	5	5	ND	
SC-015	Nov-98	n-Butylbenzene	ug/kg	5	5	ND	
SC-015	Nov-98	sec-Butylbenzene	ug/kg	5	5	ND	
SC-015	Nov-98	Ethylbenzene	ug/kg	5	5	ND	
SC-015	Nov-98	4-Isopropyltoluene (p-Isopropyltoluene)	ug/kg	5	5	ND	
SC-015	Nov-98	n-Propylbenzene	ug/kg	5	5	ND	
SC-015	Nov-98	Toluene	ug/kg	5	5	ND	

Table I-8. Summary of Soil Analytical Data for Unsaturated Zone Monitoring – Years 1-10 (continued)

Sample ID	Date	Constituent	Units	Reporting Limit	Monitoring Limit	Result	Flag
SC-015	Nov-98	1,2,4-Trimethylbenzene	ug/kg	5	5	ND	
SC-015	Nov-98	1,3,5-Trimethylbenzene	ug/kg	5	5	ND	
SC-015	Nov-98	Xylenes	ug/kg	5	5	ND	
SC-015	Nov-98	2-Butanone (MEK)	ug/kg	20	20	ND	
SC-015	Nov-98	Acenaphthylene	ug/kg	330	330	ND	
SC-015	Nov-98	Anthracene	ug/kg	330	660	ND	
SC-015	Nov-98	Benzo(a)anthracene	ug/kg	330	660	ND	
SC-015	Nov-98	Benzo(g,h,i)perylene	ug/kg	330	330	ND	
SC-015	Nov-98	Butyl benzyl phthalate	ug/kg	330	660	ND	
SC-015	Nov-98	Chrysene	ug/kg	330	660	ND	
SC-015	Nov-98	Di-n-octyl phthalate	ug/kg	330	660	ND	
SC-015	Nov-98	Dibenz(a,h)anthracene	ug/kg	330	660	ND	
SC-015	Nov-98	Fluorene	ug/kg	330	330	ND	
SC-015	Nov-98	Indeno(1,2,3-cd)pyrene	ug/kg	330	330	ND	
SC-015	Nov-98	Methyl Chrysene (6-Methylchrysene)	ug/kg	330	330	ND	
SC-015	Nov-98	1-Methylnaphthalene	ug/kg	330	660	ND	
SC-015	Nov-98	2-Methylnaphthalene	ug/kg	330	330	ND	
SC-015	Nov-98	Naphthalene	ug/kg	330	660	ND	
SC-015	Nov-98	Phenanthrene	ug/kg	330	660	ND	
SC-015	Nov-98	Pyrene	ug/kg	330	660	ND	
SC-015	Nov-98	Antimony	mg/kg	1	6.69	ND	
SC-015	Nov-98	Arsenic	mg/kg		55.5	6.5	
SC-015	Nov-98	Barium	mg/kg		1028	47.4	
SC-015	Nov-98	Beryllium	mg/kg		2.53	0.45	
SC-015	Nov-98	Cadmium	mg/kg	0.5	9.11	ND	
SC-015	Nov-98	Chromium	mg/kg		368	11	
SC-015	Nov-98	Cobalt	mg/kg		60.1	12.8	
SC-015	Nov-98	Lead	mg/kg		504	10.1	
SC-015	Nov-98	Mercury	mg/kg	0.033	0.9	ND	

Table I-8. Summary of Soil Analytical Data for Unsaturated Zone Monitoring – Years 1-10 (continued)

Sample ID	Date	Constituent	Units	Reporting Limit	Monitoring Limit	Result	Flag
SC-015	Nov-98	Nickel	mg/kg		138	27	
SC-015	Nov-98	Selenium	mg/kg	0.5	0.56	ND	
SC-015	Nov-98	Vanadium	mg/kg		446	15.6	
SC-016	Nov-98	Acetone	ug/kg	20	20	ND	
SC-016	Nov-98	Benzene	ug/kg	5	5	ND	
SC-016	Nov-98	n-Butylbenzene	ug/kg	5	5	ND	
SC-016	Nov-98	sec-Butylbenzene	ug/kg	5	5	ND	
SC-016	Nov-98	Ethylbenzene	ug/kg	5	5	ND	
SC-016	Nov-98	4-Isopropyltoluene (p-Isopropyltoluene)	ug/kg	5	5	ND	
SC-016	Nov-98	n-Propylbenzene	ug/kg	5	5	ND	
SC-016	Nov-98	Toluene	ug/kg	5	5	ND	
SC-016	Nov-98	1,2,4-Trimethylbenzene	ug/kg	5	5	0.14	J
SC-016	Nov-98	1,3,5-Trimethylbenzene	ug/kg	5	5	ND	
SC-016	Nov-98	Xylenes	ug/kg	5	5	ND	
SC-016	Nov-98	2-Butanone (MEK)	ug/kg	20	20	ND	
SC-016	Nov-98	Acenaphthylene	ug/kg	330	330	ND	
SC-016	Nov-98	Anthracene	ug/kg	330	660	ND	
SC-016	Nov-98	Benzo(a)anthracene	ug/kg	330	660	ND	
SC-016	Nov-98	Benzo(g,h,i)perylene	ug/kg	330	330	ND	
SC-016	Nov-98	Butyl benzyl phthalate	ug/kg	330	660	ND	
SC-016	Nov-98	Chrysene	ug/kg	330	660	ND	
SC-016	Nov-98	Di-n-octyl phthalate	ug/kg	330	660	ND	
SC-016	Nov-98	Dibenz(a,h)anthracene	ug/kg	330	660	ND	
SC-016	Nov-98	Fluorene	ug/kg	330	330	ND	
SC-016	Nov-98	Indeno(1,2,3-cd)pyrene	ug/kg	330	330	ND	
SC-016	Nov-98	Methyl Chrysene (6-Methylchrysene)	ug/kg	330	330	ND	
SC-016	Nov-98	1-Methylnaphthalene	ug/kg	330	660	ND	
SC-016	Nov-98	2-Methylnaphthalene	ug/kg	330	330	ND	
SC-016	Nov-98	Naphthalene	ug/kg	330	660	ND	

Table I-8. Summary of Soil Analytical Data for Unsaturated Zone Monitoring – Years 1-10 (continued)

Sample ID	Date	Constituent	Units	Reporting Limit	Monitoring Limit	Result	Flag
SC-016	Nov-98	Phenanthrene	ug/kg	330	660	ND	
SC-016	Nov-98	Pyrene	ug/kg	330	660	ND	
SC-016	Nov-98	Antimony	mg/kg	1	6.69	ND	
SC-016	Nov-98	Arsenic	mg/kg		55.5	8.9	
SC-016	Nov-98	Barium	mg/kg		1028	30.8	
SC-016	Nov-98	Beryllium	mg/kg		2.53	0.52	
SC-016	Nov-98	Cadmium	mg/kg	0.5	9.11	ND	
SC-016	Nov-98	Chromium	mg/kg		368	13.2	
SC-016	Nov-98	Cobalt	mg/kg		60.1	6.6	
SC-016	Nov-98	Lead	mg/kg		504	12.7	
SC-016	Nov-98	Mercury	mg/kg	0.033	0.9	ND	
SC-016	Nov-98	Nickel	mg/kg		138	19.2	
SC-016	Nov-98	Selenium	mg/kg	0.5	0.56	ND	
SC-016	Nov-98	Vanadium	mg/kg		446	16.8	
SC-017	Nov-99	Acetone	ug/kg	20	20	ND	
SC-017	Nov-99	Benzene	ug/kg	5	5	ND	
SC-017	Nov-99	n-Butylbenzene	ug/kg	5	5	ND	
SC-017	Nov-99	sec-Butylbenzene	ug/kg	5	5	ND	
SC-017	Nov-99	Ethylbenzene	ug/kg	5	5	ND	
SC-017	Nov-99	4-Isopropyltoluene (p-Isopropyltoluene)	ug/kg	5	5	ND	
SC-017	Nov-99	n-Propylbenzene	ug/kg	5	5	ND	
SC-017	Nov-99	Toluene	ug/kg	5	5	10	
SC-017	Nov-99	1,2,4-Trimethylbenzene	ug/kg	5	5	ND	
SC-017	Nov-99	1,3,5-Trimethylbenzene	ug/kg	5	5	ND	
SC-017	Nov-99	Xylenes	ug/kg	5	5	6.4	
SC-017	Nov-99	2-Butanone (MEK)	ug/kg	20	20	ND	
SC-017	Nov-99	Acenaphthylene	ug/kg	330	330	ND	
SC-017	Nov-99	Anthracene	ug/kg	330	660	ND	
SC-017	Nov-99	Benzo(a)anthracene	ug/kg	330	660	ND	

Table I-8. Summary of Soil Analytical Data for Unsaturated Zone Monitoring – Years 1-10 (continued)

Sample ID	Date	Constituent	Units	Reporting Limit	Monitoring Limit	Result	Flag
SC-017	Nov-99	Benzo(g,h,i)perylene	ug/kg	330	330	ND	
SC-017	Nov-99	Butyl benzyl phthalate	ug/kg	330	660	ND	
SC-017	Nov-99	Chrysene	ug/kg	330	660	ND	
SC-017	Nov-99	Di-n-octyl phthalate	ug/kg	330	660	ND	
SC-017	Nov-99	Dibenz(a,h)anthracene	ug/kg	330	660	ND	
SC-017	Nov-99	Fluorene	ug/kg	330	330	ND	
SC-017	Nov-99	Indeno(1,2,3-cd)pyrene	ug/kg	330	330	ND	
SC-017	Nov-99	Methyl Chrysene (6-Methylchrysene)	ug/kg	330	330	ND	
SC-017	Nov-99	1-Methylnaphthalene	ug/kg	330	660	ND	
SC-017	Nov-99	2-Methylnaphthalene	ug/kg	330	330	ND	
SC-017	Nov-99	Naphthalene	ug/kg	330	660	ND	
SC-017	Nov-99	Phenanthrene	ug/kg	330	660	ND	
SC-017	Nov-99	Pyrene	ug/kg	330	660	ND	
SC-017	Nov-99	Antimony	mg/kg	1	6.69	ND	
SC-017	Nov-99	Arsenic	mg/kg		55.5	11.8	
SC-017	Nov-99	Barium	mg/kg		1028	35.1	
SC-017	Nov-99	Beryllium	mg/kg		2.53	0.59	
SC-017	Nov-99	Cadmium	mg/kg	0.5	9.11	ND	
SC-017	Nov-99	Chromium	mg/kg		368	15.4	
SC-017	Nov-99	Cobalt	mg/kg		60.1	9.8	
SC-017	Nov-99	Lead	mg/kg		504	14.5	
SC-017	Nov-99	Mercury	mg/kg	0.033	0.9	ND	
SC-017	Nov-99	Nickel	mg/kg		138	24.3	
SC-017	Nov-99	Selenium	mg/kg	0.5	0.56	ND	
SC-017	Nov-99	Vanadium	mg/kg		446	19.8	
SC-018	Nov-99	Acetone	ug/kg	20	20	ND	
SC-018	Nov-99	Benzene	ug/kg	5	5	ND	
SC-018	Nov-99	n-Butylbenzene	ug/kg	5	5	ND	
SC-018	Nov-99	sec-Butylbenzene	ug/kg	5	5	ND	

Table I-8. Summary of Soil Analytical Data for Unsaturated Zone Monitoring – Years 1-10 (continued)

Sample ID	Date	Constituent	Units	Reporting Limit	Monitoring Limit	Result	Flag
SC-018	Nov-99	Ethylbenzene	ug/kg	5	5	ND	
SC-018	Nov-99	4-Isopropyltoluene (p-Isopropyltoluene)	ug/kg	5	5	ND	
SC-018	Nov-99	n-Propylbenzene	ug/kg	5	5	ND	
SC-018	Nov-99	Toluene	ug/kg	5	5	9.5	
SC-018	Nov-99	1,2,4-Trimethylbenzene	ug/kg	5	5	ND	
SC-018	Nov-99	1,3,5-Trimethylbenzene	ug/kg	5	5	ND	
SC-018	Nov-99	Xylenes	ug/kg	5	5	ND	
SC-018	Nov-99	2-Butanone (MEK)	ug/kg	20	20	ND	
SC-018	Nov-99	Acenaphthylene	ug/kg	330	330	ND	
SC-018	Nov-99	Anthracene	ug/kg	330	660	ND	
SC-018	Nov-99	Benzo(a)anthracene	ug/kg	330	660	ND	
SC-018	Nov-99	Benzo(g,h,i)perylene	ug/kg	330	330	ND	
SC-018	Nov-99	Butyl benzyl phthalate	ug/kg	330	660	ND	
SC-018	Nov-99	Chrysene	ug/kg	330	660	ND	
SC-018	Nov-99	Di-n-octyl phthalate	ug/kg	330	660	ND	
SC-018	Nov-99	Dibenz(a,h)anthracene	ug/kg	330	660	ND	
SC-018	Nov-99	Fluorene	ug/kg	330	330	ND	
SC-018	Nov-99	Indeno(1,2,3-cd)pyrene	ug/kg	330	330	ND	
SC-018	Nov-99	Methyl Chrysene (6-Methylchrysene)	ug/kg	330	330	ND	
SC-018	Nov-99	1-Methylnaphthalene	ug/kg	330	660	ND	
SC-018	Nov-99	2-Methylnaphthalene	ug/kg	330	330	ND	
SC-018	Nov-99	Naphthalene	ug/kg	330	660	ND	
SC-018	Nov-99	Phenanthrene	ug/kg	330	660	ND	
SC-018	Nov-99	Pyrene	ug/kg	330	660	ND	
SC-018	Nov-99	Antimony	mg/kg	1	6.69	ND	
SC-018	Nov-99	Arsenic	mg/kg		55.5	9.8	
SC-018	Nov-99	Barium	mg/kg		1028	34.1	
SC-018	Nov-99	Beryllium	mg/kg		2.53	0.6	
SC-018	Nov-99	Cadmium	mg/kg	0.5	9.11	ND	

Table I-8. Summary of Soil Analytical Data for Unsaturated Zone Monitoring – Years 1-10 (continued)

Sample ID	Date	Constituent	Units	Reporting Limit	Monitoring Limit	Result	Flag
SC-018	Nov-99	Chromium	mg/kg		368	16.1	
SC-018	Nov-99	Cobalt	mg/kg		60.1	7.4	
SC-018	Nov-99	Lead	mg/kg		504	14.4	
SC-018	Nov-99	Mercury	mg/kg	0.033	0.9	ND	
SC-018	Nov-99	Nickel	mg/kg		138	22.3	
SC-018	Nov-99	Selenium	mg/kg	0.5	0.56	ND	
SC-018	Nov-99	Vanadium	mg/kg		446	17.9	
SC-018-Duplicate	Nov-99	Acetone	ug/kg	20	20	ND	
SC-018-Duplicate	Nov-99	Benzene	ug/kg	5	5	ND	
SC-018-Duplicate	Nov-99	n-Butylbenzene	ug/kg	5	5	ND	
SC-018-Duplicate	Nov-99	sec-Butylbenzene	ug/kg	5	5	ND	
SC-018-Duplicate	Nov-99	Ethylbenzene	ug/kg	5	5	ND	
SC-018-Duplicate	Nov-99	4-Isopropyltoluene (p-Isopropyltoluene)	ug/kg	5	5	ND	
SC-018-Duplicate	Nov-99	n-Propylbenzene	ug/kg	5	5	ND	
SC-018-Duplicate	Nov-99	Toluene	ug/kg	5	5	8.6	
SC-018-Duplicate	Nov-99	1,2,4-Trimethylbenzene	ug/kg	5	5	ND	
SC-018-Duplicate	Nov-99	1,3,5-Trimethylbenzene	ug/kg	5	5	ND	
SC-018-Duplicate	Nov-99	Xylenes	ug/kg	5	5	ND	
SC-018-Duplicate	Nov-99	2-Butanone (MEK)	ug/kg	20	20	ND	
SC-018-Duplicate	Nov-99	Acenaphthylene	ug/kg	330	330	ND	
SC-018-Duplicate	Nov-99	Anthracene	ug/kg	330	660	ND	
SC-018-Duplicate	Nov-99	Benzo(a)anthracene	ug/kg	330	660	ND	
SC-018-Duplicate	Nov-99	Benzo(g,h,i)perylene	ug/kg	330	330	ND	
SC-018-Duplicate	Nov-99	Butyl benzyl phthalate	ug/kg	330	660	ND	
SC-018-Duplicate	Nov-99	Chrysene	ug/kg	330	660	ND	
SC-018-Duplicate	Nov-99	Di-n-octyl phthalate	ug/kg	330	660	ND	
SC-018-Duplicate	Nov-99	Dibenz(a,h)anthracene	ug/kg	330	660	ND	
SC-018-Duplicate	Nov-99	Fluorene	ug/kg	330	330	ND	
SC-018-Duplicate	Nov-99	Indeno(1,2,3-cd)pyrene	ug/kg	330	330	ND	

Table I-8. Summary of Soil Analytical Data for Unsaturated Zone Monitoring – Years 1-10 (continued)

Sample ID	Date	Constituent	Units	Reporting Limit	Monitoring Limit	Result	Flag
SC-018-Duplicate	Nov-99	Methyl Chrysene (6-Methylchrysene)	ug/kg	330	330	ND	
SC-018-Duplicate	Nov-99	1-Methylnaphthalene	ug/kg	330	660	ND	
SC-018-Duplicate	Nov-99	2-Methylnaphthalene	ug/kg	330	330	ND	
SC-018-Duplicate	Nov-99	Naphtalene	ug/kg	330	660	ND	
SC-018-Duplicate	Nov-99	Phenanthrene	ug/kg	330	660	ND	
SC-018-Duplicate	Nov-99	Pyrene	ug/kg	330	660	ND	
SC-018-Duplicate	Nov-99	Antimony	mg/kg	1	6.69	ND	
SC-018-Duplicate	Nov-99	Arsenic	mg/kg		55.5	11.5	
SC-018-Duplicate	Nov-99	Barium	mg/kg		1028	33.9	
SC-018-Duplicate	Nov-99	Beryllium	mg/kg		2.53	0.63	
SC-018-Duplicate	Nov-99	Cadmium	mg/kg	0.5	9.11	ND	
SC-018-Duplicate	Nov-99	Chromium	mg/kg		368	15.4	
SC-018-Duplicate	Nov-99	Cobalt	mg/kg		60.1	8.8	
SC-018-Duplicate	Nov-99	Lead	mg/kg		504	16	
SC-018-Duplicate	Nov-99	Mercury	mg/kg	0.033	0.9	ND	
SC-018-Duplicate	Nov-99	Nickel	mg/kg		138	23.2	
SC-018-Duplicate	Nov-99	Selenium	mg/kg	0.5	0.56	ND	
SC-018-Duplicate	Nov-99	Vanadium	mg/kg		446	19.3	
SC-019	Nov-99	Acetone	ug/kg	20	20	ND	
SC-019	Nov-99	Benzene	ug/kg	5	5	ND	
SC-019	Nov-99	n-Butylbenzene	ug/kg	5	5	ND	
SC-019	Nov-99	sec-Butylbenzene	ug/kg	5	5	ND	
SC-019	Nov-99	Ethylbenzene	ug/kg	5	5	ND	
SC-019	Nov-99	4-Isopropyltoluene (p-Isopropyltoluene)	ug/kg	5	5	ND	
SC-019	Nov-99	n-Propylbenzene	ug/kg	5	5	ND	
SC-019	Nov-99	Toluene	ug/kg	5	5	7.5	
SC-019	Nov-99	1,2,4-Trimethylbenzene	ug/kg	5	5	ND	
SC-019	Nov-99	1,3,5-Trimethylbenzene	ug/kg	5	5	ND	
SC-019	Nov-99	Xylenes	ug/kg	5	5	ND	

Table I-8. Summary of Soil Analytical Data for Unsaturated Zone Monitoring – Years 1-10 (continued)

Sample ID	Date	Constituent	Units	Reporting Limit	Monitoring Limit	Result	Flag
SC-019	Nov-99	2-Butanone (MEK)	ug/kg	20	20	ND	
SC-019	Nov-99	Acenaphthylene	ug/kg	330	330	ND	
SC-019	Nov-99	Anthracene	ug/kg	330	660	ND	
SC-019	Nov-99	Benzo(a)anthracene	ug/kg	330	660	ND	
SC-019	Nov-99	Benzo(g,h,i)perylene	ug/kg	330	330	ND	
SC-019	Nov-99	Butyl benzyl phthalate	ug/kg	330	660	ND	
SC-019	Nov-99	Chrysene	ug/kg	330	660	ND	
SC-019	Nov-99	Di-n-octyl phthalate	ug/kg	330	660	ND	
SC-019	Nov-99	Dibenz(a,h)anthracene	ug/kg	330	660	ND	
SC-019	Nov-99	Fluorene	ug/kg	330	330	ND	
SC-019	Nov-99	Indeno(1,2,3-cd)pyrene	ug/kg	330	330	ND	
SC-019	Nov-99	Methyl Chrysene (6-Methylchrysene)	ug/kg	330	330	ND	
SC-019	Nov-99	1-Methylnaphthalene	ug/kg	330	660	ND	
SC-019	Nov-99	2-Methylnaphthalene	ug/kg	330	330	ND	
SC-019	Nov-99	Naphthalene	ug/kg	330	660	ND	
SC-019	Nov-99	Phenanthrene	ug/kg	330	660	ND	
SC-019	Nov-99	Pyrene	ug/kg	330	660	ND	
SC-019	Nov-99	Antimony	mg/kg	1	6.69	ND	
SC-019	Nov-99	Arsenic	mg/kg		55.5	7.5	
SC-019	Nov-99	Barium	mg/kg		1028	55	
SC-019	Nov-99	Beryllium	mg/kg		2.53	0.7	
SC-019	Nov-99	Cadmium	mg/kg	0.5	9.11	ND	
SC-019	Nov-99	Chromium	mg/kg		368	21.2	
SC-019	Nov-99	Cobalt	mg/kg		60.1	8.6	
SC-019	Nov-99	Lead	mg/kg		504	10.9	
SC-019	Nov-99	Mercury	mg/kg	0.033	0.9	ND	
SC-019	Nov-99	Nickel	mg/kg		138	24.4	
SC-019	Nov-99	Selenium	mg/kg	0.5	0.56	ND	
SC-019	Nov-99	Vanadium	mg/kg		446	23.3	

Table I-8. Summary of Soil Analytical Data for Unsaturated Zone Monitoring – Years 1-10 (continued)

Sample ID	Date	Constituent	Units	Reporting Limit	Monitoring Limit	Result	Flag
SC-020	Nov-99	Acetone	ug/kg	20	20	ND	
SC-020	Nov-99	Benzene	ug/kg	5	5	ND	
SC-020	Nov-99	n-Butylbenzene	ug/kg	5	5	ND	
SC-020	Nov-99	sec-Butylbenzene	ug/kg	5	5	ND	
SC-020	Nov-99	Ethylbenzene	ug/kg	5	5	ND	
SC-020	Nov-99	4-Isopropyltoluene (p-Isopropyltoluene)	ug/kg	5	5	ND	
SC-020	Nov-99	n-Propylbenzene	ug/kg	5	5	ND	
SC-020	Nov-99	Toluene	ug/kg	5	5	11	
SC-020	Nov-99	1,2,4-Trimethylbenzene	ug/kg	5	5	ND	
SC-020	Nov-99	1,3,5-Trimethylbenzene	ug/kg	5	5	ND	
SC-020	Nov-99	Xylenes	ug/kg	5	5	6.5	
SC-020	Nov-99	2-Butanone (MEK)	ug/kg	20	20	ND	
SC-020	Nov-99	Acenaphthylene	ug/kg	330	330	ND	
SC-020	Nov-99	Anthracene	ug/kg	330	660	ND	
SC-020	Nov-99	Benzo(a)anthracene	ug/kg	330	660	ND	
SC-020	Nov-99	Benzo(g,h,i)perylene	ug/kg	330	330	ND	
SC-020	Nov-99	Butyl benzyl phthalate	ug/kg	330	660	ND	
SC-020	Nov-99	Chrysene	ug/kg	330	660	ND	
SC-020	Nov-99	Di-n-octyl phthalate	ug/kg	330	660	ND	
SC-020	Nov-99	Dibenz(a,h)anthracene	ug/kg	330	660	ND	
SC-020	Nov-99	Fluorene	ug/kg	330	330	ND	
SC-020	Nov-99	Indeno(1,2,3-cd)pyrene	ug/kg	330	330	ND	
SC-020	Nov-99	Methyl Chrysene (6-Methylchrysene)	ug/kg	330	330	ND	
SC-020	Nov-99	1-Methylnaphthalene	ug/kg	330	660	ND	
SC-020	Nov-99	2-Methylnaphthalene	ug/kg	330	330	ND	
SC-020	Nov-99	Naphthalene	ug/kg	330	660	ND	
SC-020	Nov-99	Phenanthrene	ug/kg	330	660	ND	
SC-020	Nov-99	Pyrene	ug/kg	330	660	ND	
SC-020	Nov-99	Antimony	mg/kg	1	6.69	ND	

Table I-8. Summary of Soil Analytical Data for Unsaturated Zone Monitoring – Years 1-10 (continued)

Sample ID	Date	Constituent	Units	Reporting Limit	Monitoring Limit	Result	Flag
SC-020	Nov-99	Arsenic	mg/kg		55.5	7.2	
SC-020	Nov-99	Barium	mg/kg		1028	32.7	
SC-020	Nov-99	Beryllium	mg/kg		2.53	0.48	
SC-020	Nov-99	Cadmium	mg/kg	0.5	9.11	ND	
SC-020	Nov-99	Chromium	mg/kg		368	12.8	
SC-020	Nov-99	Cobalt	mg/kg		60.1	6.7	
SC-020	Nov-99	Lead	mg/kg		504	10.4	
SC-020	Nov-99	Mercury	mg/kg	0.033	0.9	ND	
SC-020	Nov-99	Nickel	mg/kg		138	18.8	
SC-020	Nov-99	Selenium	mg/kg	0.5	0.56	ND	
SC-020	Nov-99	Vanadium	mg/kg		446	16	
SC-021	Nov-99	Acetone	ug/kg	20	20	ND	
SC-021	Nov-99	Benzene	ug/kg	5	5	ND	
SC-021	Nov-99	n-Butylbenzene	ug/kg	5	5	ND	
SC-021	Nov-99	sec-Butylbenzene	ug/kg	5	5	ND	
SC-021	Nov-99	Ethylbenzene	ug/kg	5	5	ND	
SC-021	Nov-99	4-Isopropyltoluene (p-Isopropyltoluene)	ug/kg	5	5	ND	
SC-021	Nov-99	n-Propylbenzene	ug/kg	5	5	ND	
SC-021	Nov-99	Toluene	ug/kg	5	5	19	
SC-021	Nov-99	1,2,4-Trimethylbenzene	ug/kg	5	5	ND	
SC-021	Nov-99	1,3,5-Trimethylbenzene	ug/kg	5	5	ND	
SC-021	Nov-99	Xylenes	ug/kg	5	5	ND	
SC-021	Nov-99	2-Butanone (MEK)	ug/kg	20	20	ND	
SC-021	Nov-99	Acenaphthylene	ug/kg	330	330	ND	
SC-021	Nov-99	Anthracene	ug/kg	330	660	ND	
SC-021	Nov-99	Benzo(a)anthracene	ug/kg	330	660	ND	
SC-021	Nov-99	Benzo(g,h,i)perylene	ug/kg	330	330	ND	
SC-021	Nov-99	Butyl benzyl phthalate	ug/kg	330	660	ND	
SC-021	Nov-99	Chrysene	ug/kg	330	660	ND	

Table I-8. Summary of Soil Analytical Data for Unsaturated Zone Monitoring – Years 1-10 (continued)

Sample ID	Date	Constituent	Units	Reporting Limit	Monitoring Limit	Result	Flag
SC-021	Nov-99	Di-n-octyl phthalate	ug/kg	330	660	ND	
SC-021	Nov-99	Dibenz(a,h)anthracene	ug/kg	330	660	ND	
SC-021	Nov-99	Fluorene	ug/kg	330	330	ND	
SC-021	Nov-99	Indeno(1,2,3-cd)pyrene	ug/kg	330	330	ND	
SC-021	Nov-99	Methyl Chrysene (6-Methylchrysene)	ug/kg	330	330	ND	
SC-021	Nov-99	1-Methylnaphthalene	ug/kg	330	660	ND	
SC-021	Nov-99	2-Methylnaphthalene	ug/kg	330	330	ND	
SC-021	Nov-99	Naphthalene	ug/kg	330	660	ND	
SC-021	Nov-99	Phenanthrene	ug/kg	330	660	ND	
SC-021	Nov-99	Pyrene	ug/kg	330	660	ND	
SC-021	Nov-99	Antimony	mg/kg	1	6.69	ND	
SC-021	Nov-99	Arsenic	mg/kg		55.5	5.8	
SC-021	Nov-99	Barium	mg/kg		1028	46.1	
SC-021	Nov-99	Beryllium	mg/kg		2.53	0.63	
SC-021	Nov-99	Cadmium	mg/kg	0.5	9.11	ND	
SC-021	Nov-99	Chromium	mg/kg		368	15.8	
SC-021	Nov-99	Cobalt	mg/kg		60.1	7.4	
SC-021	Nov-99	Lead	mg/kg		504	11	
SC-021	Nov-99	Mercury	mg/kg	0.033	0.9	ND	
SC-021	Nov-99	Nickel	mg/kg		138	27.2	
SC-021	Nov-99	Selenium	mg/kg	0.5	0.56	ND	
SC-021	Nov-99	Vanadium	mg/kg		446	18.1	
SC-022	Nov-99	Acetone	ug/kg	20	20	29	
SC-022	Nov-99	Benzene	ug/kg	5	5	ND	
SC-022	Nov-99	n-Butylbenzene	ug/kg	5	5	ND	
SC-022	Nov-99	sec-Butylbenzene	ug/kg	5	5	ND	
SC-022	Nov-99	Ethylbenzene	ug/kg	5	5	ND	
SC-022	Nov-99	4-Isopropyltoluene (p-Isopropyltoluene)	ug/kg	5	5	ND	
SC-022	Nov-99	n-Propylbenzene	ug/kg	5	5	ND	

Table I-8. Summary of Soil Analytical Data for Unsaturated Zone Monitoring – Years 1-10 (continued)

Sample ID	Date	Constituent	Units	Reporting Limit	Monitoring Limit	Result	Flag
SC-022	Nov-99	Toluene	ug/kg	5	5	5.4	
SC-022	Nov-99	1,2,4-Trimethylbenzene	ug/kg	5	5	ND	
SC-022	Nov-99	1,3,5-Trimethylbenzene	ug/kg	5	5	ND	
SC-022	Nov-99	Xylenes	ug/kg	5	5	ND	
SC-022	Nov-99	2-Butanone (MEK)	ug/kg	20	20	ND	
SC-022	Nov-99	Acenaphthylene	ug/kg	330	330	ND	
SC-022	Nov-99	Anthracene	ug/kg	330	660	ND	
SC-022	Nov-99	Benzo(a)anthracene	ug/kg	330	660	ND	
SC-022	Nov-99	Benzo(g,h,i)perylene	ug/kg	330	330	ND	
SC-022	Nov-99	Butyl benzyl phthalate	ug/kg	330	660	ND	
SC-022	Nov-99	Chrysene	ug/kg	330	660	ND	
SC-022	Nov-99	Di-n-octyl phthalate	ug/kg	330	660	ND	
SC-022	Nov-99	Dibenz(a,h)anthracene	ug/kg	330	660	ND	
SC-022	Nov-99	Fluorene	ug/kg	330	330	ND	
SC-022	Nov-99	Indeno(1,2,3-cd)pyrene	ug/kg	330	330	ND	
SC-022	Nov-99	Methyl Chrysene (6-Methylchrysene)	ug/kg	330	330	ND	
SC-022	Nov-99	1-Methylnaphthalene	ug/kg	330	660	ND	
SC-022	Nov-99	2-Methylnaphthalene	ug/kg	330	330	ND	
SC-022	Nov-99	Naphthalene	ug/kg	330	660	ND	
SC-022	Nov-99	Phenanthrene	ug/kg	330	660	ND	
SC-022	Nov-99	Pyrene	ug/kg	330	660	ND	
SC-022	Nov-99	Antimony	mg/kg	1	6.69	ND	
SC-022	Nov-99	Arsenic	mg/kg		55.5	7.1	
SC-022	Nov-99	Barium	mg/kg		1028	38.3	
SC-022	Nov-99	Beryllium	mg/kg		2.53	0.59	
SC-022	Nov-99	Cadmium	mg/kg	0.5	9.11	ND	
SC-022	Nov-99	Chromium	mg/kg		368	14.7	
SC-022	Nov-99	Cobalt	mg/kg		60.1	9	
SC-022	Nov-99	Lead	mg/kg		504	12.3	

Table I-8. Summary of Soil Analytical Data for Unsaturated Zone Monitoring – Years 1-10 (continued)

Sample ID	Date	Constituent	Units	Reporting Limit	Monitoring Limit	Result	Flag
SC-022	Nov-99	Mercury	mg/kg	0.033	0.9	ND	
SC-022	Nov-99	Nickel	mg/kg		138	24.9	
SC-022	Nov-99	Selenium	mg/kg	0.5	0.56	ND	
SC-022	Nov-99	Vanadium	mg/kg		446	18.2	
SC-023	Nov-99	Acetone	ug/kg	20	20	ND	
SC-023	Nov-99	Benzene	ug/kg	5	5	ND	
SC-023	Nov-99	n-Butylbenzene	ug/kg	5	5	ND	
SC-023	Nov-99	sec-Butylbenzene	ug/kg	5	5	ND	
SC-023	Nov-99	Ethylbenzene	ug/kg	5	5	ND	
SC-023	Nov-99	4-Isopropyltoluene (p-Isopropyltoluene)	ug/kg	5	5	ND	
SC-023	Nov-99	n-Propylbenzene	ug/kg	5	5	ND	
SC-023	Nov-99	Toluene	ug/kg	5	5	7.5	
SC-023	Nov-99	1,2,4-Trimethylbenzene	ug/kg	5	5	ND	
SC-023	Nov-99	1,3,5-Trimethylbenzene	ug/kg	5	5	ND	
SC-023	Nov-99	Xylenes	ug/kg	5	5	5.9	
SC-023	Nov-99	2-Butanone (MEK)	ug/kg	20	20	ND	
SC-023	Nov-99	Acenaphthylene	ug/kg	330	330	ND	
SC-023	Nov-99	Anthracene	ug/kg	330	660	ND	
SC-023	Nov-99	Benzo(a)anthracene	ug/kg	330	660	ND	
SC-023	Nov-99	Benzo(g,h,i)perylene	ug/kg	330	330	ND	
SC-023	Nov-99	Butyl benzyl phthalate	ug/kg	330	660	ND	
SC-023	Nov-99	Chrysene	ug/kg	330	660	ND	
SC-023	Nov-99	Di-n-octyl phthalate	ug/kg	330	660	ND	
SC-023	Nov-99	Dibenz(a,h)anthracene	ug/kg	330	660	ND	
SC-023	Nov-99	Fluorene	ug/kg	330	330	ND	
SC-023	Nov-99	Indeno(1,2,3-cd)pyrene	ug/kg	330	330	ND	
SC-023	Nov-99	Methyl Chrysene (6-Methylchrysene)	ug/kg	330	330	ND	
SC-023	Nov-99	1-Methylnaphthalene	ug/kg	330	660	ND	
SC-023	Nov-99	2-Methylnaphthalene	ug/kg	330	330	ND	

Table I-8. Summary of Soil Analytical Data for Unsaturated Zone Monitoring – Years 1-10 (continued)

Sample ID	Date	Constituent	Units	Reporting Limit	Monitoring Limit	Result	Flag
SC-023	Nov-99	Naphtalene	ug/kg	330	660	ND	
SC-023	Nov-99	Phenanthrene	ug/kg	330	660	ND	
SC-023	Nov-99	Pyrene	ug/kg	330	660	ND	
SC-023	Nov-99	Antimony	mg/kg	1	6.69	ND	
SC-023	Nov-99	Arsenic	mg/kg		55.5	9.2	
SC-023	Nov-99	Barium	mg/kg		1028	38.6	
SC-023	Nov-99	Beryllium	mg/kg		2.53	0.55	
SC-023	Nov-99	Cadmium	mg/kg	0.5	9.11	ND	
SC-023	Nov-99	Chromium	mg/kg		368	13.2	
SC-023	Nov-99	Cobalt	mg/kg		60.1	9.3	
SC-023	Nov-99	Lead	mg/kg		504	12.3	
SC-023	Nov-99	Mercury	mg/kg	0.033	0.9	ND	
SC-023	Nov-99	Nickel	mg/kg		138	23	
SC-023	Nov-99	Selenium	mg/kg	0.5	0.56	ND	
SC-023	Nov-99	Vanadium	mg/kg		446	16.7	
SC-024	Nov-99	Acetone	ug/kg	20	20	ND	
SC-024	Nov-99	Benzene	ug/kg	5	5	ND	
SC-024	Nov-99	n-Butylbenzene	ug/kg	5	5	ND	
SC-024	Nov-99	sec-Butylbenzene	ug/kg	5	5	ND	
SC-024	Nov-99	Ethylbenzene	ug/kg	5	5	ND	
SC-024	Nov-99	4-Isopropyltoluene (p-Isopropyltoluene)	ug/kg	5	5	ND	
SC-024	Nov-99	n-Propylbenzene	ug/kg	5	5	ND	
SC-024	Nov-99	Toluene	ug/kg	5	5	11	
SC-024	Nov-99	1,2,4-Trimethylbenzene	ug/kg	5	5	ND	
SC-024	Nov-99	1,3,5-Trimethylbenzene	ug/kg	5	5	ND	
SC-024	Nov-99	Xylenes	ug/kg	5	5	6.2	
SC-024	Nov-99	2-Butanone (MEK)	ug/kg	20	20	ND	
SC-024	Nov-99	Acenaphthylene	ug/kg	330	330	ND	
SC-024	Nov-99	Anthracene	ug/kg	330	660	ND	

Table I-8. Summary of Soil Analytical Data for Unsaturated Zone Monitoring – Years 1-10 (continued)

Sample ID	Date	Constituent	Units	Reporting Limit	Monitoring Limit	Result	Flag
SC-024	Nov-99	Benzo(a)anthracene	ug/kg	330	660	ND	
SC-024	Nov-99	Benzo(g,h,i)perylene	ug/kg	330	330	ND	
SC-024	Nov-99	Butyl benzyl phthalate	ug/kg	330	660	ND	
SC-024	Nov-99	Chrysene	ug/kg	330	660	ND	
SC-024	Nov-99	Di-n-octyl phthalate	ug/kg	330	660	ND	
SC-024	Nov-99	Dibenz(a,h)anthracene	ug/kg	330	660	ND	
SC-024	Nov-99	Fluorene	ug/kg	330	330	ND	
SC-024	Nov-99	Indeno(1,2,3-cd)pyrene	ug/kg	330	330	ND	
SC-024	Nov-99	Methyl Chrysene (6-Methylchrysene)	ug/kg	330	330	ND	
SC-024	Nov-99	1-Methylnaphthalene	ug/kg	330	660	ND	
SC-024	Nov-99	2-Methylnaphthalene	ug/kg	330	330	ND	
SC-024	Nov-99	Naphthalene	ug/kg	330	660	ND	
SC-024	Nov-99	Phenanthrene	ug/kg	330	660	ND	
SC-024	Nov-99	Pyrene	ug/kg	330	660	ND	
SC-024	Nov-99	Antimony	mg/kg	1	6.69	ND	
SC-024	Nov-99	Arsenic	mg/kg		55.5	12.9	
SC-024	Nov-99	Barium	mg/kg		1028	40.5	
SC-024	Nov-99	Beryllium	mg/kg		2.53	0.57	
SC-024	Nov-99	Cadmium	mg/kg	0.5	9.11	ND	
SC-024	Nov-99	Chromium	mg/kg		368	12.8	
SC-024	Nov-99	Cobalt	mg/kg		60.1	10	
SC-024	Nov-99	Lead	mg/kg		504	16.5	
SC-024	Nov-99	Mercury	mg/kg	0.033	0.9	ND	
SC-024	Nov-99	Nickel	mg/kg		138	24.9	
SC-024	Nov-99	Selenium	mg/kg	0.5	0.56	ND	
SC-024	Nov-99	Vanadium	mg/kg		446	17.4	
SC-025	Nov-00	Acetone	ug/kg	20	20	ND	
SC-025	Nov-00	Benzene	ug/kg	5	5	ND	
SC-025	Nov-00	n-Butylbenzene	ug/kg	5	5	ND	

Table I-8. Summary of Soil Analytical Data for Unsaturated Zone Monitoring – Years 1-10 (continued)

Sample ID	Date	Constituent	Units	Reporting Limit	Monitoring Limit	Result	Flag
SC-025	Nov-00	sec-Butylbenzene	ug/kg	5	5	ND	
SC-025	Nov-00	Ethylbenzene	ug/kg	5	5	ND	
SC-025	Nov-00	4-Isopropyltoluene (p-Isopropyltoluene)	ug/kg	5	5	ND	
SC-025	Nov-00	n-Propylbenzene	ug/kg	5	5	ND	
SC-025	Nov-00	Toluene	ug/kg	5	5	ND	
SC-025	Nov-00	1,2,4-Trimethylbenzene	ug/kg	5	5	ND	
SC-025	Nov-00	1,3,5-Trimethylbenzene	ug/kg	5	5	ND	
SC-025	Nov-00	Xylenes	ug/kg	5	5	ND	
SC-025	Nov-00	2-Butanone (MEK)	ug/kg	20	20	ND	
SC-025	Nov-00	Acenaphthylene	ug/kg	330	330	ND	
SC-025	Nov-00	Anthracene	ug/kg	330	660	ND	
SC-025	Nov-00	Benzo(a)anthracene	ug/kg	330	660	ND	
SC-025	Nov-00	Benzo(g,h,i)perylene	ug/kg	330	330	ND	
SC-025	Nov-00	Butyl benzyl phthalate	ug/kg	330	660	ND	
SC-025	Nov-00	Chrysene	ug/kg	330	660	ND	
SC-025	Nov-00	Di-n-octyl phthalate	ug/kg	330	660	ND	
SC-025	Nov-00	Dibenz(a,h)anthracene	ug/kg	330	660	ND	
SC-025	Nov-00	Fluorene	ug/kg	330	330	ND	
SC-025	Nov-00	Indeno(1,2,3-cd)pyrene	ug/kg	330	330	ND	
SC-025	Nov-00	Methyl Chrysene (6-Methylchrysene)	ug/kg	330	330	ND	
SC-025	Nov-00	1-Methylnaphthalene	ug/kg	330	660	ND	
SC-025	Nov-00	2-Methylnaphthalene	ug/kg	330	330	ND	
SC-025	Nov-00	Naphthalene	ug/kg	330	660	ND	
SC-025	Nov-00	Phenanthrene	ug/kg	330	660	ND	
SC-025	Nov-00	Pyrene	ug/kg	330	660	ND	
SC-025	Nov-00	Antimony	mg/kg	3.2	6.69	ND	
SC-025	Nov-00	Arsenic	mg/kg		55.5	8.67	
SC-025	Nov-00	Barium	mg/kg		1028	39.6	
SC-025	Nov-00	Beryllium	mg/kg	0.3	2.53	ND	

Table I-8. Summary of Soil Analytical Data for Unsaturated Zone Monitoring – Years 1-10 (continued)

Sample ID	Date	Constituent	Units	Reporting Limit	Monitoring Limit	Result	Flag
SC-025	Nov-00	Cadmium	mg/kg	0.6	9.11	ND	
SC-025	Nov-00	Chromium	mg/kg		368	34.7	
SC-025	Nov-00	Cobalt	mg/kg		60.1	7.85	
SC-025	Nov-00	Lead	mg/kg		504	12.7	
SC-025	Nov-00	Mercury	mg/kg		0.9	0.051	
SC-025	Nov-00	Nickel	mg/kg		138	23.2	
SC-025	Nov-00	Selenium	mg/kg	0.75	0.56	ND	
SC-025	Nov-00	Vanadium	mg/kg		446	15	
SC-026	Nov-00	Acetone	ug/kg	20	20	ND	
SC-026	Nov-00	Benzene	ug/kg	5	5	ND	
SC-026	Nov-00	n-Butylbenzene	ug/kg	5	5	ND	
SC-026	Nov-00	sec-Butylbenzene	ug/kg	5	5	ND	
SC-026	Nov-00	Ethylbenzene	ug/kg	5	5	ND	
SC-026	Nov-00	4-Isopropyltoluene (p-Isopropyltoluene)	ug/kg	5	5	ND	
SC-026	Nov-00	n-Propylbenzene	ug/kg	5	5	ND	
SC-026	Nov-00	Toluene	ug/kg	5	5	ND	
SC-026	Nov-00	1,2,4-Trimethylbenzene	ug/kg	5	5	ND	
SC-026	Nov-00	1,3,5-Trimethylbenzene	ug/kg	5	5	ND	
SC-026	Nov-00	Xylenes	ug/kg	5	5	ND	
SC-026	Nov-00	2-Butanone (MEK)	ug/kg	20	20	ND	
SC-026	Nov-00	Acenaphthylene	ug/kg	330	330	ND	
SC-026	Nov-00	Anthracene	ug/kg	330	660	ND	
SC-026	Nov-00	Benzo(a)anthracene	ug/kg	330	660	ND	
SC-026	Nov-00	Benzo(g,h,i)perylene	ug/kg	330	330	ND	
SC-026	Nov-00	Butyl benzyl phthalate	ug/kg	330	660	ND	
SC-026	Nov-00	Chrysene	ug/kg	330	660	ND	
SC-026	Nov-00	Di-n-octyl phthalate	ug/kg	330	660	ND	
SC-026	Nov-00	Dibenz(a,h)anthracene	ug/kg	330	660	ND	
SC-026	Nov-00	Fluorene	ug/kg	330	330	ND	

Table I-8. Summary of Soil Analytical Data for Unsaturated Zone Monitoring – Years 1-10 (continued)

Sample ID	Date	Constituent	Units	Reporting Limit	Monitoring Limit	Result	Flag
SC-026	Nov-00	Indeno(1,2,3-cd)pyrene	ug/kg	330	330	ND	
SC-026	Nov-00	Methyl Chrysene (6-Methylchrysene)	ug/kg	330	330	ND	
SC-026	Nov-00	1-Methylnaphthalene	ug/kg	330	660	ND	
SC-026	Nov-00	2-Methylnaphthalene	ug/kg	330	330	ND	
SC-026	Nov-00	Naphthalene	ug/kg	330	660	ND	
SC-026	Nov-00	Phenanthrene	ug/kg	330	660	ND	
SC-026	Nov-00	Pyrene	ug/kg	330	660	ND	
SC-026	Nov-00	Antimony	mg/kg	3.2	6.69	ND	
SC-026	Nov-00	Arsenic	mg/kg		55.5	7.69	
SC-026	Nov-00	Barium	mg/kg		1028	37.1	
SC-026	Nov-00	Beryllium	mg/kg	0.3	2.53	ND	
SC-026	Nov-00	Cadmium	mg/kg	0.6	9.11	1.28	
SC-026	Nov-00	Chromium	mg/kg		368	14.4	
SC-026	Nov-00	Cobalt	mg/kg		60.1	8.95	
SC-026	Nov-00	Lead	mg/kg		504	13.4	
SC-026	Nov-00	Mercury	mg/kg		0.9	0.007	
SC-026	Nov-00	Nickel	mg/kg		138	27.4	
SC-026	Nov-00	Selenium	mg/kg	0.75	0.56	ND	
SC-026	Nov-00	Vanadium	mg/kg		446	12.3	
SC-027	Nov-00	Acetone	ug/kg	20	20	ND	
SC-027	Nov-00	Benzene	ug/kg	5	5	ND	
SC-027	Nov-00	n-Butylbenzene	ug/kg	5	5	ND	
SC-027	Nov-00	sec-Butylbenzene	ug/kg	5	5	ND	
SC-027	Nov-00	Ethylbenzene	ug/kg	5	5	ND	
SC-027	Nov-00	4-Isopropyltoluene (p-Isopropyltoluene)	ug/kg	5	5	ND	
SC-027	Nov-00	n-Propylbenzene	ug/kg	5	5	ND	
SC-027	Nov-00	Toluene	ug/kg	5	5	ND	
SC-027	Nov-00	1,2,4-Trimethylbenzene	ug/kg	5	5	ND	
SC-027	Nov-00	1,3,5-Trimethylbenzene	ug/kg	5	5	ND	

Table I-8. Summary of Soil Analytical Data for Unsaturated Zone Monitoring – Years 1-10 (continued)

Sample ID	Date	Constituent	Units	Reporting Limit	Monitoring Limit	Result	Flag
SC-027	Nov-00	Xylenes	ug/kg	5	5	ND	
SC-027	Nov-00	2-Butanone (MEK)	ug/kg	20	20	ND	
SC-027	Nov-00	Acenaphthylene	ug/kg	330	330	ND	
SC-027	Nov-00	Anthracene	ug/kg	330	660	ND	
SC-027	Nov-00	Benzo(a)anthracene	ug/kg	330	660	ND	
SC-027	Nov-00	Benzo(g,h,i)perylene	ug/kg	330	330	ND	
SC-027	Nov-00	Butyl benzyl phthalate	ug/kg	330	660	ND	
SC-027	Nov-00	Chrysene	ug/kg	330	660	ND	
SC-027	Nov-00	Di-n-octyl phthalate	ug/kg	330	660	ND	
SC-027	Nov-00	Dibenz(a,h)anthracene	ug/kg	330	660	ND	
SC-027	Nov-00	Fluorene	ug/kg	330	330	ND	
SC-027	Nov-00	Indeno(1,2,3-cd)pyrene	ug/kg	330	330	ND	
SC-027	Nov-00	Methyl Chrysene (6-Methylchrysene)	ug/kg	330	330	ND	
SC-027	Nov-00	1-Methylnaphthalene	ug/kg	330	660	ND	
SC-027	Nov-00	2-Methylnaphthalene	ug/kg	330	330	ND	
SC-027	Nov-00	Naphtalene	ug/kg	330	660	ND	
SC-027	Nov-00	Phenanthrene	ug/kg	330	660	ND	
SC-027	Nov-00	Pyrene	ug/kg	330	660	ND	
SC-027	Nov-00	Antimony	mg/kg	3.2	6.69	ND	
SC-027	Nov-00	Arsenic	mg/kg		55.5	7.61	
SC-027	Nov-00	Barium	mg/kg		1028	30.6	
SC-027	Nov-00	Beryllium	mg/kg	0.3	2.53	ND	
SC-027	Nov-00	Cadmium	mg/kg	0.6	9.11	3.2	
SC-027	Nov-00	Chromium	mg/kg		368	12.2	
SC-027	Nov-00	Cobalt	mg/kg		60.1	6.9	
SC-027	Nov-00	Lead	mg/kg		504	20.2	
SC-027	Nov-00	Mercury	mg/kg		0.9	0.095	
SC-027	Nov-00	Nickel	mg/kg		138	24.8	
SC-027	Nov-00	Selenium	ug/kg	0.75	0.56	ND	

Table I-8. Summary of Soil Analytical Data for Unsaturated Zone Monitoring – Years 1-10 (continued)

Sample ID	Date	Constituent	Units	Reporting Limit	Monitoring Limit	Result	Flag
SC-027	Nov-00	Vanadium	mg/kg		446	13.5	
SC-028	Nov-00	Acetone	ug/kg	20	20	ND	
SC-028	Nov-00	Benzene	ug/kg	5	5	ND	
SC-028	Nov-00	n-Butylbenzene	ug/kg	5	5	ND	
SC-028	Nov-00	sec-Butylbenzene	ug/kg	5	5	ND	
SC-028	Nov-00	Ethylbenzene	ug/kg	5	5	ND	
SC-028	Nov-00	4-Isopropyltoluene (p-Isopropyltoluene)	ug/kg	5	5	ND	
SC-028	Nov-00	n-Propylbenzene	ug/kg	5	5	ND	
SC-028	Nov-00	Toluene	ug/kg	5	5	ND	
SC-028	Nov-00	1,2,4-Trimethylbenzene	ug/kg	5	5	ND	
SC-028	Nov-00	1,3,5-Trimethylbenzene	ug/kg	5	5	ND	
SC-028	Nov-00	Xylenes	ug/kg	5	5	ND	
SC-028	Nov-00	2-Butanone (MEK)	ug/kg	20	20	ND	
SC-028	Nov-00	Acenaphthylene	ug/kg	330	330	ND	
SC-028	Nov-00	Anthracene	ug/kg	330	660	ND	
SC-028	Nov-00	Benzo(a)anthracene	ug/kg	330	660	ND	
SC-028	Nov-00	Benzo(g,h,i)perylene	ug/kg	330	330	ND	
SC-028	Nov-00	Butyl benzyl phthalate	ug/kg	330	660	ND	
SC-028	Nov-00	Chrysene	ug/kg	330	660	ND	
SC-028	Nov-00	Di-n-octyl phthalate	ug/kg	330	660	ND	
SC-028	Nov-00	Dibenz(a,h)anthracene	ug/kg	330	660	ND	
SC-028	Nov-00	Fluorene	ug/kg	330	330	ND	
SC-028	Nov-00	Indeno(1,2,3-cd)pyrene	ug/kg	330	330	ND	
SC-028	Nov-00	Methyl Chrysene (6-Methylchrysene)	ug/kg	330	330	ND	
SC-028	Nov-00	1-Methylnaphthalene	ug/kg	330	660	ND	
SC-028	Nov-00	2-Methylnaphthalene	ug/kg	330	330	ND	
SC-028	Nov-00	Naphthalene	ug/kg	330	660	ND	
SC-028	Nov-00	Phenanthrene	ug/kg	330	660	ND	
SC-028	Nov-00	Pyrene	ug/kg	330	660	ND	

Table I-8. Summary of Soil Analytical Data for Unsaturated Zone Monitoring – Years 1-10 (continued)

Sample ID	Date	Constituent	Units	Reporting Limit	Monitoring Limit	Result	Flag
SC-028	Nov-00	Antimony	mg/kg	3.2	6.69	ND	
SC-028	Nov-00	Arsenic	mg/kg		55.5	3.4	
SC-028	Nov-00	Barium	mg/kg		1028	39.1	
SC-028	Nov-00	Beryllium	mg/kg	0.3	2.53	ND	
SC-028	Nov-00	Cadmium	mg/kg	0.6	9.11	ND	
SC-028	Nov-00	Chromium	mg/kg		368	11	
SC-028	Nov-00	Cobalt	mg/kg		60.1	3.38	
SC-028	Nov-00	Lead	mg/kg		504	11.5	
SC-028	Nov-00	Mercury	mg/kg		0.9	0.007	
SC-028	Nov-00	Nickel	mg/kg		138	22.6	
SC-028	Nov-00	Selenium	mg/kg	0.75	0.56	ND	
SC-028	Nov-00	Vanadium	mg/kg		446	9.45	
SC-029	Nov-00	Acetone	ug/kg	20	20	ND	
SC-029	Nov-00	Benzene	ug/kg	5	5	ND	
SC-029	Nov-00	n-Butylbenzene	ug/kg	5	5	ND	
SC-029	Nov-00	sec-Butylbenzene	ug/kg	5	5	ND	
SC-029	Nov-00	Ethylbenzene	ug/kg	5	5	ND	
SC-029	Nov-00	4-Isopropyltoluene (p-Isopropyltoluene)	ug/kg	5	5	ND	
SC-029	Nov-00	n-Propylbenzene	ug/kg	5	5	ND	
SC-029	Nov-00	Toluene	ug/kg	5	5	ND	
SC-029	Nov-00	1,2,4-Trimethylbenzene	ug/kg	5	5	ND	
SC-029	Nov-00	1,3,5-Trimethylbenzene	ug/kg	5	5	ND	
SC-029	Nov-00	Xylenes	ug/kg	5	5	ND	
SC-029	Nov-00	2-Butanone (MEK)	ug/kg	20	20	ND	
SC-029	Nov-00	Acenaphthylene	ug/kg	330	330	ND	
SC-029	Nov-00	Anthracene	ug/kg	330	660	ND	
SC-029	Nov-00	Benzo(a)anthracene	ug/kg	330	660	ND	
SC-029	Nov-00	Benzo(g,h,i)perylene	ug/kg	330	330	ND	
SC-029	Nov-00	Butyl benzyl phthalate	ug/kg	330	660	ND	

Table I-8. Summary of Soil Analytical Data for Unsaturated Zone Monitoring – Years 1-10 (continued)

Sample ID	Date	Constituent	Units	Reporting Limit	Monitoring Limit	Result	Flag
SC-029	Nov-00	Chrysene	ug/kg	330	660	ND	
SC-029	Nov-00	Di-n-octyl phthalate	ug/kg	330	660	ND	
SC-029	Nov-00	Dibenz(a,h)anthracene	ug/kg	330	660	ND	
SC-029	Nov-00	Fluorene	ug/kg	330	330	ND	
SC-029	Nov-00	Indeno(1,2,3-cd)pyrene	ug/kg	330	330	ND	
SC-029	Nov-00	Methyl Chrysene (6-Methylchrysene)	ug/kg	330	330	ND	
SC-029	Nov-00	1-Methylnaphthalene	ug/kg	330	660	ND	
SC-029	Nov-00	2-Methylnaphthalene	ug/kg	330	330	ND	
SC-029	Nov-00	Naphthalene	ug/kg	330	660	ND	
SC-029	Nov-00	Phenanthrene	ug/kg	330	660	ND	
SC-029	Nov-00	Pyrene	ug/kg	330	660	ND	
SC-029	Nov-00	Antimony	mg/kg	3.2	6.69	ND	
SC-029	Nov-00	Arsenic	mg/kg		55.5	8.82	
SC-029	Nov-00	Barium	mg/kg		1028	20.5	
SC-029	Nov-00	Beryllium	mg/kg	0.3	2.53	ND	
SC-029	Nov-00	Cadmium	mg/kg	0.6	9.11	2.5	
SC-029	Nov-00	Chromium	mg/kg		368	9.88	
SC-029	Nov-00	Cobalt	mg/kg		60.1	10.8	
SC-029	Nov-00	Lead	mg/kg		504	13.2	
SC-029	Nov-00	Mercury	mg/kg		0.9	0.038	
SC-029	Nov-00	Nickel	mg/kg		138	22.6	
SC-029	Nov-00	Selenium	mg/kg	0.75	0.56	ND	
SC-029	Nov-00	Vanadium	mg/kg		446	11.1	
SC-029-Duplicate	Nov-00	Acetone	ug/kg	20	20	ND	
SC-029-Duplicate	Nov-00	Benzene	ug/kg	5	5	ND	
SC-029-Duplicate	Nov-00	n-Butylbenzene	ug/kg	5	5	ND	
SC-029-Duplicate	Nov-00	sec-Butylbenzene	ug/kg	5	5	ND	
SC-029-Duplicate	Nov-00	Ethylbenzene	ug/kg	5	5	ND	
SC-029-Duplicate	Nov-00	4-Isopropyltoluene (p-Isopropyltoluene)	ug/kg	5	5	ND	

Table I-8. Summary of Soil Analytical Data for Unsaturated Zone Monitoring – Years 1-10 (continued)

Sample ID	Date	Constituent	Units	Reporting Limit	Monitoring Limit	Result	Flag
SC-029-Duplicate	Nov-00	n-Propylbenzene	ug/kg	5	5	ND	
SC-029-Duplicate	Nov-00	Toluene	ug/kg	5	5	ND	
SC-029-Duplicate	Nov-00	1,2,4-Trimethylbenzene	ug/kg	5	5	ND	
SC-029-Duplicate	Nov-00	1,3,5-Trimethylbenzene	ug/kg	5	5	ND	
SC-029-Duplicate	Nov-00	Xylenes	ug/kg	5	5	ND	
SC-029-Duplicate	Nov-00	2-Butanone (MEK)	ug/kg	20	20	ND	
SC-029-Duplicate	Nov-00	Acenaphthylene	ug/kg	330	330	ND	
SC-029-Duplicate	Nov-00	Anthracene	ug/kg	330	660	ND	
SC-029-Duplicate	Nov-00	Benzo(a)anthracene	ug/kg	330	660	ND	
SC-029-Duplicate	Nov-00	Benzo(g,h,i)perylene	ug/kg	330	330	ND	
SC-029-Duplicate	Nov-00	Butyl benzyl phthalate	ug/kg	330	660	ND	
SC-029-Duplicate	Nov-00	Chrysene	ug/kg	330	660	ND	
SC-029-Duplicate	Nov-00	Di-n-octyl phthalate	ug/kg	330	660	ND	
SC-029-Duplicate	Nov-00	Dibenz(a,h)anthracene	ug/kg	330	660	ND	
SC-029-Duplicate	Nov-00	Fluorene	ug/kg	330	330	ND	
SC-029-Duplicate	Nov-00	Indeno(1,2,3-cd)pyrene	ug/kg	330	330	ND	
SC-029-Duplicate	Nov-00	Methyl Chrysene (6-Methylchrysene)	ug/kg	330	330	ND	
SC-029-Duplicate	Nov-00	1-Methylnaphthalene	ug/kg	330	660	ND	
SC-029-Duplicate	Nov-00	2-Methylnaphthalene	ug/kg	330	330	ND	
SC-029-Duplicate	Nov-00	Naphtalene	ug/kg	330	660	ND	
SC-029-Duplicate	Nov-00	Phenanthrene	ug/kg	330	660	ND	
SC-029-Duplicate	Nov-00	Pyrene	ug/kg	330	660	ND	
SC-029-Duplicate	Nov-00	Antimony	mg/kg	3.2	6.69	ND	
SC-029-Duplicate	Nov-00	Arsenic	mg/kg		55.5	10.2	
SC-029-Duplicate	Nov-00	Barium	mg/kg		1028	26.5	
SC-029-Duplicate	Nov-00	Beryllium	mg/kg	0.3	2.53	ND	
SC-029-Duplicate	Nov-00	Cadmium	mg/kg	0.6	9.11	0.875	
SC-029-Duplicate	Nov-00	Chromium	mg/kg		368	9.62	
SC-029-Duplicate	Nov-00	Cobalt	mg/kg		60.1	11.3	

Table I-8. Summary of Soil Analytical Data for Unsaturated Zone Monitoring – Years 1-10 (continued)

Sample ID	Date	Constituent	Units	Reporting Limit	Monitoring Limit	Result	Flag
SC-029-Duplicate	Nov-00	Lead	mg/kg		504	18.8	
SC-029-Duplicate	Nov-00	Mercury	mg/kg		0.9	0.049	
SC-029-Duplicate	Nov-00	Nickel	mg/kg		138	25.9	
SC-029-Duplicate	Nov-00	Selenium	mg/kg	0.75	0.56	ND	
SC-029-Duplicate	Nov-00	Vanadium	mg/kg		446	11	
SC-030	Nov-00	Acetone	ug/kg	20	20	ND	
SC-030	Nov-00	Benzene	ug/kg	5	5	ND	
SC-030	Nov-00	n-Butylbenzene	ug/kg	5	5	ND	
SC-030	Nov-00	sec-Butylbenzene	ug/kg	5	5	ND	
SC-030	Nov-00	Ethylbenzene	ug/kg	5	5	ND	
SC-030	Nov-00	4-Isopropyltoluene (p-Isopropyltoluene)	ug/kg	5	5	ND	
SC-030	Nov-00	n-Propylbenzene	ug/kg	5	5	ND	
SC-030	Nov-00	Toluene	ug/kg	5	5	ND	
SC-030	Nov-00	1,2,4-Trimethylbenzene	ug/kg	5	5	ND	
SC-030	Nov-00	1,3,5-Trimethylbenzene	ug/kg	5	5	ND	
SC-030	Nov-00	Xylenes	ug/kg	5	5	ND	
SC-030	Nov-00	2-Butanone (MEK)	ug/kg	20	20	ND	
SC-030	Nov-00	Acenaphthylene	ug/kg	330	330	ND	
SC-030	Nov-00	Anthracene	ug/kg	330	660	ND	
SC-030	Nov-00	Benzo(a)anthracene	ug/kg	330	660	ND	
SC-030	Nov-00	Benzo(g,h,i)perylene	ug/kg	330	330	ND	
SC-030	Nov-00	Butyl benzyl phthalate	ug/kg	330	660	ND	
SC-030	Nov-00	Chrysene	ug/kg	330	660	ND	
SC-030	Nov-00	Di-n-octyl phthalate	ug/kg	330	660	ND	
SC-030	Nov-00	Dibenz(a,h)anthracene	ug/kg	330	660	ND	
SC-030	Nov-00	Fluorene	ug/kg	330	330	ND	
SC-030	Nov-00	Indeno(1,2,3-cd)pyrene	ug/kg	330	330	ND	
SC-030	Nov-00	Methyl Chrysene (6-Methylchrysene)	ug/kg	330	330	ND	
SC-030	Nov-00	1-Methylnaphthalene	ug/kg	330	660	ND	

Table I-8. Summary of Soil Analytical Data for Unsaturated Zone Monitoring – Years 1-10 (continued)

Sample ID	Date	Constituent	Units	Reporting Limit	Monitoring Limit	Result	Flag
SC-030	Nov-00	2-Methylnaphthalene	ug/kg	330	330	ND	
SC-030	Nov-00	Naphthalene	ug/kg	330	660	ND	
SC-030	Nov-00	Phenanthrene	ug/kg	330	660	ND	
SC-030	Nov-00	Pyrene	ug/kg	330	660	ND	
SC-030	Nov-00	Antimony	mg/kg	3.2	6.69	ND	
SC-030	Nov-00	Arsenic	mg/kg		55.5	7.68	
SC-030	Nov-00	Barium	mg/kg		1028	19	
SC-030	Nov-00	Beryllium	mg/kg	0.3	2.53	ND	
SC-030	Nov-00	Cadmium	mg/kg	0.6	9.11	ND	
SC-030	Nov-00	Chromium	mg/kg		368	8.95	
SC-030	Nov-00	Cobalt	mg/kg		60.1	1	J
SC-030	Nov-00	Lead	mg/kg		504	6.12	
SC-030	Nov-00	Mercury	mg/kg		0.9	0.062	
SC-030	Nov-00	Nickel	mg/kg		138	22.4	
SC-030	Nov-00	Selenium	mg/kg	0.75	0.56	ND	
SC-030	Nov-00	Vanadium	mg/kg		446	1.5	J
SC-031	Nov-00	Acetone	ug/kg	20	20	ND	
SC-031	Nov-00	Benzene	ug/kg	5	5	ND	
SC-031	Nov-00	n-Butylbenzene	ug/kg	5	5	ND	
SC-031	Nov-00	sec-Butylbenzene	ug/kg	5	5	ND	
SC-031	Nov-00	Ethylbenzene	ug/kg	5	5	ND	
SC-031	Nov-00	4-Isopropyltoluene (p-Isopropyltoluene)	ug/kg	5	5	ND	
SC-031	Nov-00	n-Propylbenzene	ug/kg	5	5	ND	
SC-031	Nov-00	Toluene	ug/kg	5	5	ND	
SC-031	Nov-00	1,2,4-Trimethylbenzene	ug/kg	5	5	ND	
SC-031	Nov-00	1,3,5-Trimethylbenzene	ug/kg	5	5	ND	
SC-031	Nov-00	Xylenes	ug/kg	5	5	ND	
SC-031	Nov-00	2-Butanone (MEK)	ug/kg	20	20	ND	
SC-031	Nov-00	Acenaphthylene	ug/kg	330	330	ND	

Table I-8. Summary of Soil Analytical Data for Unsaturated Zone Monitoring – Years 1-10 (continued)

Sample ID	Date	Constituent	Units	Reporting Limit	Monitoring Limit	Result	Flag
SC-031	Nov-00	Anthracene	ug/kg	330	660	ND	
SC-031	Nov-00	Benzo(a)anthracene	ug/kg	330	660	ND	
SC-031	Nov-00	Benzo(g,h,i)perylene	ug/kg	330	330	ND	
SC-031	Nov-00	Butyl benzyl phthalate	ug/kg	330	660	ND	
SC-031	Nov-00	Chrysene	ug/kg	330	660	ND	
SC-031	Nov-00	Di-n-octyl phthalate	ug/kg	330	660	ND	
SC-031	Nov-00	Dibenz(a,h)anthracene	ug/kg	330	660	ND	
SC-031	Nov-00	Fluorene	ug/kg	330	330	ND	
SC-031	Nov-00	Indeno(1,2,3-cd)pyrene	ug/kg	330	330	ND	
SC-031	Nov-00	Methyl Chrysene (6-Methylchrysene)	ug/kg	330	330	ND	
SC-031	Nov-00	1-Methylnaphthalene	ug/kg	330	660	ND	
SC-031	Nov-00	2-Methylnaphthalene	ug/kg	330	330	ND	
SC-031	Nov-00	Naphthalene	ug/kg	330	660	ND	
SC-031	Nov-00	Phenanthrene	ug/kg	330	660	ND	
SC-031	Nov-00	Pyrene	ug/kg	330	660	ND	
SC-031	Nov-00	Antimony	mg/kg	3.2	6.69	ND	
SC-031	Nov-00	Arsenic	mg/kg		55.5	11	
SC-031	Nov-00	Barium	mg/kg		1028	42.7	
SC-031	Nov-00	Beryllium	mg/kg	0.3	2.53	ND	
SC-031	Nov-00	Cadmium	mg/kg	0.6	9.11	0.43	J
SC-031	Nov-00	Chromium	mg/kg		368	19.8	
SC-031	Nov-00	Cobalt	mg/kg		60.1	8.52	
SC-031	Nov-00	Lead	mg/kg		504	15.7	
SC-031	Nov-00	Mercury	mg/kg		0.9	0.04	
SC-031	Nov-00	Nickel	mg/kg		138	22.4	
SC-031	Nov-00	Selenium	mg/kg	0.75	0.56	ND	
SC-031	Nov-00	Vanadium	mg/kg		446	18.8	
SC-032	Nov-00	Acetone	ug/kg	20	20	ND	
SC-032	Nov-00	Benzene	ug/kg	5	5	ND	

Table I-8. Summary of Soil Analytical Data for Unsaturated Zone Monitoring – Years 1-10 (continued)

Sample ID	Date	Constituent	Units	Reporting Limit	Monitoring Limit	Result	Flag
SC-032	Nov-00	n-Butylbenzene	ug/kg	5	5	ND	
SC-032	Nov-00	sec-Butylbenzene	ug/kg	5	5	ND	
SC-032	Nov-00	Ethylbenzene	ug/kg	5	5	ND	
SC-032	Nov-00	4-Isopropyltoluene (p-Isopropyltoluene)	ug/kg	5	5	ND	
SC-032	Nov-00	n-Propylbenzene	ug/kg	5	5	ND	
SC-032	Nov-00	Toluene	ug/kg	5	5	ND	
SC-032	Nov-00	1,2,4-Trimethylbenzene	ug/kg	5	5	ND	
SC-032	Nov-00	1,3,5-Trimethylbenzene	ug/kg	5	5	ND	
SC-032	Nov-00	Xylenes	ug/kg	5	5	ND	
SC-032	Nov-00	2-Butanone (MEK)	ug/kg	20	20	ND	
SC-032	Nov-00	Acenaphthylene	ug/kg	330	330	ND	
SC-032	Nov-00	Anthracene	ug/kg	330	660	ND	
SC-032	Nov-00	Benzo(a)anthracene	ug/kg	330	660	ND	
SC-032	Nov-00	Benzo(g,h,i)perylene	ug/kg	330	330	ND	
SC-032	Nov-00	Butyl benzyl phthalate	ug/kg	330	660	ND	
SC-032	Nov-00	Chrysene	ug/kg	330	660	ND	
SC-032	Nov-00	Di-n-octyl phthalate	ug/kg	330	660	ND	
SC-032	Nov-00	Dibenz(a,h)anthracene	ug/kg	330	660	ND	
SC-032	Nov-00	Fluorene	ug/kg	330	330	ND	
SC-032	Nov-00	Indeno(1,2,3-cd)pyrene	ug/kg	330	330	ND	
SC-032	Nov-00	Methyl Chrysene (6-Methylchrysene)	ug/kg	330	330	ND	
SC-032	Nov-00	1-Methylnaphthalene	ug/kg	330	660	ND	
SC-032	Nov-00	2-Methylnaphthalene	ug/kg	330	330	ND	
SC-032	Nov-00	Naphthalene	ug/kg	330	660	ND	
SC-032	Nov-00	Phenanthrene	ug/kg	330	660	ND	
SC-032	Nov-00	Pyrene	ug/kg	330	660	ND	
SC-032	Nov-00	Antimony	mg/kg	3.2	6.69	ND	
SC-032	Nov-00	Arsenic	mg/kg		55.5	6.42	
SC-032	Nov-00	Barium	mg/kg		1028	39.7	

Table I-8. Summary of Soil Analytical Data for Unsaturated Zone Monitoring – Years 1-10 (continued)

Sample ID	Date	Constituent	Units	Reporting Limit	Monitoring Limit	Result	Flag
SC-032	Nov-00	Beryllium	mg/kg	0.3	2.53	ND	
SC-032	Nov-00	Cadmium	mg/kg	0.6	9.11	ND	
SC-032	Nov-00	Chromium	mg/kg		368	14	
SC-032	Nov-00	Cobalt	mg/kg		60.1	8.3	
SC-032	Nov-00	Lead	mg/kg		504	15.6	
SC-032	Nov-00	Mercury	mg/kg		0.9	0.029	
SC-032	Nov-00	Nickel	mg/kg		138	23.4	
SC-032	Nov-00	Selenium	mg/kg	0.75	0.56	ND	
SC-032	Nov-00	Vanadium	mg/kg		446	14	
SC-033	Nov-01	1,2-Dichloroethane	ug/kg	6	5	ND	
SC-033	Nov-01	1,2-Dibromoethane (Ethylene Dibromide)	ug/kg	6	10	ND	
SC-033	Nov-01	1,2,4-Trimethylbenzene	ug/kg	6	5	ND	
SC-033	Nov-01	1,3,5-Trimethylbenzene	ug/kg	6	5	ND	
SC-033	Nov-01	2-Butanone (MEK)	ug/kg	6	20	ND	
SC-033	Nov-01	4-Isopropyltoluene (p-Isopropyltoluene)	ug/kg	6	5	ND	
SC-033	Nov-01	Acetone	ug/kg	6	20	ND	
SC-033	Nov-01	Benzene	ug/kg	6	5	ND	
SC-033	Nov-01	n-Butylbenzene	ug/kg	6	5	ND	
SC-033	Nov-01	sec-Butylbenzene	ug/kg	6	5	ND	
SC-033	Nov-01	Carbon Disulfide	ug/kg	6	5	ND	
SC-033	Nov-01	Chlorobenzene	ug/kg	6	5	ND	
SC-033	Nov-01	Chloroform	ug/kg	6	5	ND	
SC-033	Nov-01	Ethylbenzene	ug/kg	6	5	ND	
SC-033	Nov-01	n-Propylbenzene	ug/kg	6	5	ND	
SC-033	Nov-01	Styrene	ug/kg	6	5	ND	
SC-033	Nov-01	Toluene	ug/kg	6	5	ND	
SC-033	Nov-01	Xylenes	ug/kg	6	5	ND	
SC-033	Nov-01	1-Methylnaphthalene	ug/kg	400	660	ND	
SC-033	Nov-01	1,2-Dichlorobenzene	ug/kg	400	660	ND	

Table I-8. Summary of Soil Analytical Data for Unsaturated Zone Monitoring – Years 1-10 (continued)

Sample ID	Date	Constituent	Units	Reporting Limit	Monitoring Limit	Result	Flag
SC-033	Nov-01	1,3-Dichlorobenzene	ug/kg	400	660	ND	
SC-033	Nov-01	1,4-Dichlorobenzene	ug/kg	400	660	ND	
SC-033	Nov-01	1,4-Dioxane	ug/kg	1600	500	ND	
SC-033	Nov-01	2-Methylnaphthalene	ug/kg	400	330	ND	
SC-033	Nov-01	2-Methylphenol (O-Cresol)	ug/kg	400	660	ND	
SC-033	Nov-01	2,4-Dimethylphenol	ug/kg	400	660	ND	
SC-033	Nov-01	2,4-Dinitrophenol	ug/kg	2000	3300	ND	
SC-033	Nov-01	4-Methylphenol (M/P-Cresol)	ug/kg	400	660	ND	
SC-033	Nov-01	4-Nitrophenol	ug/kg	2000	3300	ND	
SC-033	Nov-01	Methyl Chrysene (6-Methylchrysene)	ug/kg	400	330	ND	
SC-033	Nov-01	7,12-Dimethylbenz(a)anthracene	ug/kg	800	660	ND	
SC-033	Nov-01	Acenaphthylene	ug/kg	400	330	ND	
SC-033	Nov-01	Anthracene	ug/kg	400	660	ND	
SC-033	Nov-01	Benzenethiol	ug/kg	400	3300	ND	
SC-033	Nov-01	Benzo(a)anthracene	ug/kg	400	660	ND	
SC-033	Nov-01	Benzo(b)fluoranthene	ug/kg	400	660	ND	
SC-033	Nov-01	Benzo(k)fluoranthene	ug/kg	400	660	ND	
SC-033	Nov-01	Benzo(g,h,i)perylene	ug/kg	400	330	ND	
SC-033	Nov-01	Benzo(a)pyrene	ug/kg	400	660	ND	
SC-033	Nov-01	Bis(2-ethylhexyl)phthalate	ug/kg	400	660	ND	
SC-033	Nov-01	Butyl benzyl phthalate	ug/kg	400	660	ND	
SC-033	Nov-01	Chrysene	ug/kg	400	660	ND	
SC-033	Nov-01	Di-n-butyl phthalate	ug/kg	400	660	ND	
SC-033	Nov-01	Di-n-octyl phthalate	ug/kg	400	660	ND	
SC-033	Nov-01	Dibenz(a,h)anthracene	ug/kg	400	660	ND	
SC-033	Nov-01	Dibenz(f,h)acridine	ug/kg	400	330	ND	
SC-033	Nov-01	Diethyl phthalate	ug/kg	400	660	ND	
SC-033	Nov-01	Dimethyl phthalate	ug/kg	400	660	ND	
SC-033	Nov-01	Fluoranthene	ug/kg	400	660	ND	

Table I-8. Summary of Soil Analytical Data for Unsaturated Zone Monitoring – Years 1-10 (continued)

Sample ID	Date	Constituent	Units	Reporting Limit	Monitoring Limit	Result	Flag
SC-033	Nov-01	Fluorene	ug/kg	400	330	ND	
SC-033	Nov-01	Indene	ug/kg	400	330	ND	
SC-033	Nov-01	Indeno(1,2,3-cd)pyrene	ug/kg	400	330	ND	
SC-033	Nov-01	Naphthalene	ug/kg	400	660	ND	
SC-033	Nov-01	Phenanthrene	ug/kg	400	660	ND	
SC-033	Nov-01	Phenol	ug/kg	400	660	ND	
SC-033	Nov-01	Pyrene	ug/kg	400	660	ND	
SC-033	Nov-01	Pyridine	ug/kg	800	660	ND	
SC-033	Nov-01	Quinoline	ug/kg	400	330	ND	
SC-033	Nov-01	Antimony	mg/kg	1.5	6.69	ND	
SC-033	Nov-01	Arsenic	mg/kg		55.5	7.5	
SC-033	Nov-01	Barium	mg/kg		1028	49.8	
SC-033	Nov-01	Beryllium	mg/kg		2.53	0.75	
SC-033	Nov-01	Cadmium	mg/kg		9.11	0.28	
SC-033	Nov-01	Chromium	mg/kg		368	22	
SC-033	Nov-01	Cobalt	mg/kg		60.1	9.7	
SC-033	Nov-01	Lead	mg/kg		504	11.9	
SC-033	Nov-01	Mercury	mg/kg	0.04	0.9	ND	
SC-033	Nov-01	Nickel	mg/kg		138	27.9	
SC-033	Nov-01	Selenium	mg/kg	0.73	9.56	ND	
SC-033	Nov-01	Vanadium	mg/kg		446	25.5	
SC-034	Nov-01	1,2-Dichloroethane	ug/kg	6	5	ND	
SC-034	Nov-01	1,2-Dibromoethane (Ethylene Dibromide)	ug/kg	6	10	ND	
SC-034	Nov-01	1,2,4-Trimethylbenzene	ug/kg	6	5	ND	
SC-034	Nov-01	1,3,5-Trimethylbenzene	ug/kg	6	5	ND	
SC-034	Nov-01	2-Butanone (MEK)	ug/kg	6	20	ND	
SC-034	Nov-01	4-Isopropyltoluene (p-Isopropyltoluene)	ug/kg	6	5	ND	
SC-034	Nov-01	Acetone	ug/kg	6	20	ND	
SC-034	Nov-01	Benzene	ug/kg	6	5	ND	

Table I-8. Summary of Soil Analytical Data for Unsaturated Zone Monitoring – Years 1-10 (continued)

Sample ID	Date	Constituent	Units	Reporting Limit	Monitoring Limit	Result	Flag
SC-034	Nov-01	n-Butylbenzene	ug/kg	6	5	ND	
SC-034	Nov-01	sec-Butylbenzene	ug/kg	6	5	ND	
SC-034	Nov-01	Carbon Disulfide	ug/kg	6	5	ND	
SC-034	Nov-01	Chlorobenzene	ug/kg	6	5	ND	
SC-034	Nov-01	Chloroform	ug/kg	6	5	ND	
SC-034	Nov-01	Ethylbenzene	ug/kg	6	5	ND	
SC-034	Nov-01	n-Propylbenzene	ug/kg	6	5	ND	
SC-034	Nov-01	Styrene	ug/kg	6	5	ND	
SC-034	Nov-01	Toluene	ug/kg	6	5	ND	
SC-034	Nov-01	Xylenes	ug/kg	6	5	ND	
SC-034	Nov-01	1-Methylnaphthalene	ug/kg	380	660	ND	
SC-034	Nov-01	1,2-Dichlorobenzene	ug/kg	380	660	ND	
SC-034	Nov-01	1,3-Dichlorobenzene	ug/kg	380	660	ND	
SC-034	Nov-01	1,4-Dichlorobenzene	ug/kg	380	660	ND	
SC-034	Nov-01	1,4-Dioxane	ug/kg	1500	500	ND	
SC-034	Nov-01	2-Methylnaphthalene	ug/kg	380	330	ND	
SC-034	Nov-01	2-Methylphenol (O-Cresol)	ug/kg	380	660	ND	
SC-034	Nov-01	2,4-Dimethylphenol	ug/kg	380	660	ND	
SC-034	Nov-01	2,4-Dinitrophenol	ug/kg	1900	3300	ND	
SC-034	Nov-01	4-Methylphenol (M/P-Cresol)	ug/kg	380	660	ND	
SC-034	Nov-01	4-Nitrophenol	ug/kg	1900	3300	ND	
SC-034	Nov-01	Methyl Chrysene (6-Methylchrysene)	ug/kg	380	330	ND	
SC-034	Nov-01	7,12-Dimethylbenz(a)anthracene	ug/kg	760	660	ND	
SC-034	Nov-01	Acenaphthylene	ug/kg	380	330	ND	
SC-034	Nov-01	Anthracene	ug/kg	380	660	ND	
SC-034	Nov-01	Benzenethiol	ug/kg	380	3300	ND	
SC-034	Nov-01	Benzo(a)anthracene	ug/kg	380	660	ND	
SC-034	Nov-01	Benzo(b)fluoranthene	ug/kg	380	660	ND	
SC-034	Nov-01	Benzo(k)fluoranthene	ug/kg	380	660	ND	

Table I-8. Summary of Soil Analytical Data for Unsaturated Zone Monitoring – Years 1-10 (continued)

Sample ID	Date	Constituent	Units	Reporting Limit	Monitoring Limit	Result	Flag
SC-034	Nov-01	Benzo(a,h,i)perylene	ug/kg	380	330	ND	
SC-034	Nov-01	Benzo(a)pyrene	ug/kg	380	660	ND	
SC-034	Nov-01	Bis(2-ethylhexyl)phthalate	ug/kg	380	660	ND	
SC-034	Nov-01	Butyl benzyl phthalate	ug/kg	380	660	ND	
SC-034	Nov-01	Chrysene	ug/kg	380	660	ND	
SC-034	Nov-01	Di-n-butyl phthalate	ug/kg	380	660	ND	
SC-034	Nov-01	Di-n-octyl phthalate	ug/kg	380	660	ND	
SC-034	Nov-01	Dibenz(a,h)anthracene	ug/kg	380	660	ND	
SC-034	Nov-01	Dibenz(a,h)acridine	ug/kg	380	330	ND	
SC-034	Nov-01	Diethyl phthalate	ug/kg	380	660	ND	
SC-034	Nov-01	Dimethyl phthalate	ug/kg	380	660	ND	
SC-034	Nov-01	Fluoranthene	ug/kg	380	660	ND	
SC-034	Nov-01	Fluorene	ug/kg	380	330	ND	
SC-034	Nov-01	Indene	ug/kg	380	330	ND	
SC-034	Nov-01	Indeno(1,2,3-cd)pyrene	ug/kg	380	330	ND	
SC-034	Nov-01	Naphthalene	ug/kg	380	660	ND	
SC-034	Nov-01	Phenanthrene	ug/kg	380	660	ND	
SC-034	Nov-01	Phenol	ug/kg	380	660	ND	
SC-034	Nov-01	Pyrene	ug/kg	380	660	ND	
SC-034	Nov-01	Pyridine	ug/kg	760	660	ND	
SC-034	Nov-01	Quinoline	ug/kg	380	330	ND	
SC-034	Nov-01	Antimony	mg/kg	1.5	6.69	ND	
SC-034	Nov-01	Arsenic	mg/kg		55.5	9.5	
SC-034	Nov-01	Barium	mg/kg		1028	37.4	
SC-034	Nov-01	Beryllium	mg/kg		2.53	0.49	
SC-034	Nov-01	Cadmium	mg/kg		9.11	0.33	
SC-034	Nov-01	Chromium	mg/kg		368	15.7	
SC-034	Nov-01	Cobalt	mg/kg		60.1	8.8	
SC-034	Nov-01	Lead	mg/kg		504	10.9	

Table I-8. Summary of Soil Analytical Data for Unsaturated Zone Monitoring – Years 1-10 (continued)

Sample ID	Date	Constituent	Units	Reporting Limit	Monitoring Limit	Result	Flag
SC-034	Nov-01	Mercury	mg/kg	0.038	0.9	ND	
SC-034	Nov-01	Nickel	mg/kg		138	23.1	
SC-034	Nov-01	Selenium	ug/kg	0.76	0.56	ND	
SC-034	Nov-01	Vanadium	mg/kg		446	19.1	
SC-035	Nov-01	1,2-Dichloroethane	ug/kg	6	5	ND	
SC-035	Nov-01	1,2-Dibromoethane (Ethylene Dibromide)	ug/kg	6	10	ND	
SC-035	Nov-01	1,2,4-Trimethylbenzene	ug/kg	6	5	ND	
SC-035	Nov-01	1,3,5-Trimethylbenzene	ug/kg	6	5	ND	
SC-035	Nov-01	2-Butanone (MEK)	ug/kg	6	20	ND	
SC-035	Nov-01	4-Isopropyltoluene (p-Isopropyltoluene)	ug/kg	6	5	ND	
SC-035	Nov-01	Acetone	ug/kg	6	20	ND	
SC-035	Nov-01	Benzene	ug/kg	6	5	ND	
SC-035	Nov-01	n-Butylbenzene	ug/kg	6	5	ND	
SC-035	Nov-01	sec-Butylbenzene	ug/kg	6	5	ND	
SC-035	Nov-01	Carbon Disulfide	ug/kg	6	5	ND	
SC-035	Nov-01	Chlorobenzene	ug/kg	6	5	ND	
SC-035	Nov-01	Chloroform	ug/kg	6	5	ND	
SC-035	Nov-01	Ethylbenzene	ug/kg	6	5	ND	
SC-035	Nov-01	n-Propylbenzene	ug/kg	6	5	ND	
SC-035	Nov-01	Styrene	ug/kg	6	5	ND	
SC-035	Nov-01	Toluene	ug/kg	6	5	ND	
SC-035	Nov-01	Xylenes	ug/kg	6	5	ND	
SC-035	Nov-01	1-Methylnaphthalene	ug/kg	380	660	ND	
SC-035	Nov-01	1,2-Dichlorobenzene	ug/kg	380	660	ND	
SC-035	Nov-01	1,3-Dichlorobenzene	ug/kg	380	660	ND	
SC-035	Nov-01	1,4-Dichlorobenzene	ug/kg	380	660	ND	
SC-035	Nov-01	1,4-Dioxane	ug/kg	1500	500	ND	
SC-035	Nov-01	2-Methylnaphthalene	ug/kg	380	330	ND	
SC-035	Nov-01	2-Methylphenol (O-Cresol)	ug/kg	380	660	ND	

Table I-8. Summary of Soil Analytical Data for Unsaturated Zone Monitoring – Years 1-10 (continued)

Sample ID	Date	Constituent	Units	Reporting Limit	Monitoring Limit	Result	Flag
SC-035	Nov-01	2,4-Dimethylphenol	ug/kg	380	660	ND	
SC-035	Nov-01	2,4-Dinitrophenol	ug/kg	2000	3300	ND	
SC-035	Nov-01	4-Methylphenol (M/P-Cresol)	ug/kg	380	660	ND	
SC-035	Nov-01	4-Nitrophenol	ug/kg	2000	3300	ND	
SC-035	Nov-01	Methyl Chrysene (6-Methylchrysene)	ug/kg	380	330	ND	
SC-035	Nov-01	7,12-Dimethylbenz(a)anthracene	ug/kg	780	660	ND	
SC-035	Nov-01	Acenaphthylene	ug/kg	380	330	ND	
SC-035	Nov-01	Anthracene	ug/kg	380	660	ND	
SC-035	Nov-01	Benzenethiol	ug/kg	380	3300	ND	
SC-035	Nov-01	Benzo(a)anthracene	ug/kg	380	660	ND	
SC-035	Nov-01	Benzo(b)fluoranthene	ug/kg	380	660	ND	
SC-035	Nov-01	Benzo(k)fluoranthene	ug/kg	380	660	ND	
SC-035	Nov-01	Benzo(g,h,i)perylene	ug/kg	380	330	ND	
SC-035	Nov-01	Benzo(a)pyrene	ug/kg	380	660	ND	
SC-035	Nov-01	Bis(2-ethylhexyl)phthalate	ug/kg	380	660	ND	
SC-035	Nov-01	Butyl benzyl phthalate	ug/kg	380	660	ND	
SC-035	Nov-01	Chrysene	ug/kg	380	660	ND	
SC-035	Nov-01	Di-n-butyl phthalate	ug/kg	380	660	ND	
SC-035	Nov-01	Di-n-octyl phthalate	ug/kg	380	660	ND	
SC-035	Nov-01	Dibenz(a,h)anthracene	ug/kg	380	660	ND	
SC-035	Nov-01	Dibenz(a,h)acridine	ug/kg	380	330	ND	
SC-035	Nov-01	Diethyl phthalate	ug/kg	380	660	ND	
SC-035	Nov-01	Dimethyl phthalate	ug/kg	380	660	ND	
SC-035	Nov-01	Fluoranthene	ug/kg	380	660	ND	
SC-035	Nov-01	Fluorene	ug/kg	380	330	ND	
SC-035	Nov-01	Indene	ug/kg	380	330	ND	
SC-035	Nov-01	Indeno(1,2,3-cd)pyrene	ug/kg	380	330	ND	
SC-035	Nov-01	Naphthalene	ug/kg	380	660	ND	
SC-035	Nov-01	Phenanthrene	ug/kg	380	660	ND	

Table I-8. Summary of Soil Analytical Data for Unsaturated Zone Monitoring – Years 1-10 (continued)

Sample ID	Date	Constituent	Units	Reporting Limit	Monitoring Limit	Result	Flag
SC-035	Nov-01	Phenol	ug/kg	380	660	ND	
SC-035	Nov-01	Pyrene	ug/kg	380	660	ND	
SC-035	Nov-01	Pyridine	ug/kg	780	660	ND	
SC-035	Nov-01	Quinoline	ug/kg	380	330	ND	
SC-035	Nov-01	Antimony	mg/kg	1.5	6.69	ND	
SC-035	Nov-01	Arsenic	mg/kg		55.5	10.4	
SC-035	Nov-01	Barium	mg/kg		1028	45.4	
SC-035	Nov-01	Beryllium	mg/kg		2.53	0.52	
SC-035	Nov-01	Cadmium	mg/kg		9.11	0.31	
SC-035	Nov-01	Chromium	mg/kg		368	16.5	
SC-035	Nov-01	Cobalt	mg/kg		60.1	12.2	
SC-035	Nov-01	Lead	mg/kg		504	13.5	
SC-035	Nov-01	Mercury	mg/kg	0.039	0.9	ND	
SC-035	Nov-01	Nickel	mg/kg		138	28	
SC-035	Nov-01	Selenium	mg/kg	0.92	0.56	ND	
SC-035	Nov-01	Vanadium	mg/kg		446	20.1	
SC-035-Duplicate	Nov-01	1,2-Dichloroethane	ug/kg	6	5	ND	
SC-035-Duplicate	Nov-01	1,2-Dibromoethane (Ethylene Dibromide)	ug/kg	6	10	ND	
SC-035-Duplicate	Nov-01	1,2,4-Trimethylbenzene	ug/kg	6	5	ND	
SC-035-Duplicate	Nov-01	1,3,5-Trimethylbenzene	ug/kg	6	5	ND	
SC-035-Duplicate	Nov-01	2-Butanone (MEK)	ug/kg	6	20	ND	
SC-035-Duplicate	Nov-01	4-Isopropyltoluene (p-Isopropyltoluene)	ug/kg	6	5	ND	
SC-035-Duplicate	Nov-01	Acetone	ug/kg	6	20	6	
SC-035-Duplicate	Nov-01	Benzene	ug/kg	6	5	ND	
SC-035-Duplicate	Nov-01	n-Butylbenzene	ug/kg	6	5	ND	
SC-035-Duplicate	Nov-01	sec-Butylbenzene	ug/kg	6	5	ND	
SC-035-Duplicate	Nov-01	Carbon Disulfide	ug/kg	6	5	ND	
SC-035-Duplicate	Nov-01	Chlorobenzene	ug/kg	6	5	ND	
SC-035-Duplicate	Nov-01	Chloroform	ug/kg	6	5	ND	

Table I-8. Summary of Soil Analytical Data for Unsaturated Zone Monitoring – Years 1-10 (continued)

Sample ID	Date	Constituent	Units	Reporting Limit	Monitoring Limit	Result	Flag
SC-035-Duplicate	Nov-01	Ethylbenzene	ug/kg	6	5	ND	
SC-035-Duplicate	Nov-01	n-Propylbenzene	ug/kg	6	5	ND	
SC-035-Duplicate	Nov-01	Styrene	ug/kg	6	5	ND	
SC-035-Duplicate	Nov-01	Toluene	ug/kg	6	5	ND	
SC-035-Duplicate	Nov-01	Xylenes	ug/kg	6	5	ND	
SC-035-Duplicate	Nov-01	1-Methylnaphthalene	ug/kg	380	660	ND	
SC-035-Duplicate	Nov-01	1,2-Dichlorobenzene	ug/kg	380	660	ND	
SC-035-Duplicate	Nov-01	1,3-Dichlorobenzene	ug/kg	380	660	ND	
SC-035-Duplicate	Nov-01	1,4-Dichlorobenzene	ug/kg	380	660	ND	
SC-035-Duplicate	Nov-01	1,4-Dioxane	ug/kg	1500	500	ND	
SC-035-Duplicate	Nov-01	2-Methylnaphthalene	ug/kg	380	330	ND	
SC-035-Duplicate	Nov-01	2-Methylphenol (O-Cresol)	ug/kg	380	660	ND	
SC-035-Duplicate	Nov-01	2,4-Dimethylphenol	ug/kg	380	660	ND	
SC-035-Duplicate	Nov-01	2,4-Dinitrophenol	ug/kg	2000	3300	ND	
SC-035-Duplicate	Nov-01	4-Methylphenol (M/P-Cresol)	ug/kg	380	660	ND	
SC-035-Duplicate	Nov-01	4-Nitrophenol	ug/kg	2000	3300	ND	
SC-035-Duplicate	Nov-01	Methyl Chrysene (6-Methylchrysene)	ug/kg	380	330	ND	
SC-035-Duplicate	Nov-01	7,12-Dimethylbenz(a)anthracene	ug/kg	770	660	ND	
SC-035-Duplicate	Nov-01	Acenaphthylene	ug/kg	380	330	ND	
SC-035-Duplicate	Nov-01	Anthracene	ug/kg	380	660	ND	
SC-035-Duplicate	Nov-01	Benzenethiol	ug/kg	380	3300	ND	
SC-035-Duplicate	Nov-01	Benzo(a)anthracene	ug/kg	380	660	ND	
SC-035-Duplicate	Nov-01	Benzo(b)fluoranthene	ug/kg	380	660	ND	
SC-035-Duplicate	Nov-01	Benzo(k)fluoranthene	ug/kg	380	660	ND	
SC-035-Duplicate	Nov-01	Benzo(g,h,i)perylene	ug/kg	380	330	ND	
SC-035-Duplicate	Nov-01	Benzo(a)pyrene	ug/kg	380	660	ND	
SC-035-Duplicate	Nov-01	Bis(2-ethylhexyl)phthalate	ug/kg	380	660	ND	
SC-035-Duplicate	Nov-01	Butyl benzyl phthalate	ug/kg	380	660	ND	
SC-035-Duplicate	Nov-01	Chrysene	ug/kg	380	660	ND	

Table I-8. Summary of Soil Analytical Data for Unsaturated Zone Monitoring – Years 1-10 (continued)

Sample ID	Date	Constituent	Units	Reporting Limit	Monitoring Limit	Result	Flag
SC-035-Duplicate	Nov-01	Di-n-butyl phthalate	ug/kg	380	660	ND	
SC-035-Duplicate	Nov-01	Di-n-octyl phthalate	ug/kg	380	660	ND	
SC-035-Duplicate	Nov-01	Dibenz(a,h)anthracene	ug/kg	380	660	ND	
SC-035-Duplicate	Nov-01	Dibenz(a,h)acridine	ug/kg	380	330	ND	
SC-035-Duplicate	Nov-01	Diethyl phthalate	ug/kg	380	660	ND	
SC-035-Duplicate	Nov-01	Dimethyl phthalate	ug/kg	380	660	ND	
SC-035-Duplicate	Nov-01	Fluoranthene	ug/kg	380	660	ND	
SC-035-Duplicate	Nov-01	Fluorene	ug/kg	380	330	ND	
SC-035-Duplicate	Nov-01	Indene	ug/kg	380	330	ND	
SC-035-Duplicate	Nov-01	Indeno(1,2,3-cd)pyrene	ug/kg	380	330	ND	
SC-035-Duplicate	Nov-01	Naphthalene	ug/kg	380	660	ND	
SC-035-Duplicate	Nov-01	Phenanthrene	ug/kg	380	660	ND	
SC-035-Duplicate	Nov-01	Phenol	ug/kg	380	660	ND	
SC-035-Duplicate	Nov-01	Pyrene	ug/kg	380	660	ND	
SC-035-Duplicate	Nov-01	Pyridine	ug/kg	770	660	ND	
SC-035-Duplicate	Nov-01	Quinoline	ug/kg	380	330	ND	
SC-035-Duplicate	Nov-01	Antimony	mg/kg	1.4	6.69	ND	
SC-035-Duplicate	Nov-01	Arsenic	mg/kg		55.5	10	
SC-035-Duplicate	Nov-01	Barium	mg/kg		1028	35.1	
SC-035-Duplicate	Nov-01	Beryllium	mg/kg		2.53	0.45	
SC-035-Duplicate	Nov-01	Cadmium	mg/kg		9.11	0.35	
SC-035-Duplicate	Nov-01	Chromium	mg/kg		368	14.6	
SC-035-Duplicate	Nov-01	Cobalt	mg/kg		60.1	9.5	
SC-035-Duplicate	Nov-01	Lead	mg/kg		504	12.5	
SC-035-Duplicate	Nov-01	Mercury	mg/kg	0.039	0.9	ND	
SC-035-Duplicate	Nov-01	Nickel	mg/kg		138	23	
SC-035-Duplicate	Nov-01	Selenium	mg/kg	0.72	0.56	ND	
SC-035-Duplicate	Nov-01	Vanadium	mg/kg		446	17.3	
SC-036	Nov-01	1,2-Dichloroethane	ug/kg	6	5	ND	

Table I-8. Summary of Soil Analytical Data for Unsaturated Zone Monitoring – Years 1-10 (continued)

Sample ID	Date	Constituent	Units	Reporting Limit	Monitoring Limit	Result	Flag
SC-036	Nov-01	1,2-Dibromoethane (Ethylene Dibromide)	ug/kg	6	10	ND	
SC-036	Nov-01	1,2,4-Trimethylbenzene	ug/kg	6	5	ND	
SC-036	Nov-01	1,3,5-Trimethylbenzene	ug/kg	6	5	ND	
SC-036	Nov-01	2-Butanone (MEK)	ug/kg	6	20	ND	
SC-036	Nov-01	4-Isopropyltoluene (p-Isopropyltoluene)	ug/kg	6	5	ND	
SC-036	Nov-01	Acetone	ug/kg	6	20	ND	
SC-036	Nov-01	Benzene	ug/kg	6	5	ND	
SC-036	Nov-01	n-Butylbenzene	ug/kg	6	5	ND	
SC-036	Nov-01	sec-Butylbenzene	ug/kg	6	5	ND	
SC-036	Nov-01	Carbon Disulfide	ug/kg	6	5	ND	
SC-036	Nov-01	Chlorobenzene	ug/kg	6	5	ND	
SC-036	Nov-01	Chloroform	ug/kg	6	5	ND	
SC-036	Nov-01	Ethylbenzene	ug/kg	6	5	ND	
SC-036	Nov-01	n-Propylbenzene	ug/kg	6	5	ND	
SC-036	Nov-01	Styrene	ug/kg	6	5	ND	
SC-036	Nov-01	Toluene	ug/kg	6	5	ND	
SC-036	Nov-01	Xylenes	ug/kg	6	5	ND	
SC-036	Nov-01	1-Methylnaphthalene	ug/kg	370	660	ND	
SC-036	Nov-01	1,2-Dichlorobenzene	ug/kg	370	660	ND	
SC-036	Nov-01	1,3-Dichlorobenzene	ug/kg	370	660	ND	
SC-036	Nov-01	1,4-Dichlorobenzene	ug/kg	370	660	ND	
SC-036	Nov-01	1,4-Dioxane	ug/kg	1500	500	ND	
SC-036	Nov-01	2-Methylnaphthalene	ug/kg	370	330	ND	
SC-036	Nov-01	2-Methylphenol (O-Cresol)	ug/kg	370	660	ND	
SC-036	Nov-01	2,4-Dimethylphenol	ug/kg	370	660	ND	
SC-036	Nov-01	2,4-Dinitrophenol	ug/kg	1900	3300	ND	
SC-036	Nov-01	4-Methylphenol (M/P-Cresol)	ug/kg	370	660	ND	
SC-036	Nov-01	4-Nitrophenol	ug/kg	1900	3300	ND	
SC-036	Nov-01	Methyl Chrysene (6-Methylchrysene)	ug/kg	370	330	ND	

Table I-8. Summary of Soil Analytical Data for Unsaturated Zone Monitoring – Years 1-10 (continued)

Sample ID	Date	Constituent	Units	Reporting Limit	Monitoring Limit	Result	Flag
SC-036	Nov-01	7,12-Dimethylbenz(a)anthracene	ug/kg	750	660	ND	
SC-036	Nov-01	Acenaphthylene	ug/kg	370	330	ND	
SC-036	Nov-01	Anthracene	ug/kg	370	660	ND	
SC-036	Nov-01	Benzenethiol	ug/kg	370	3300	ND	
SC-036	Nov-01	Benzo(a)anthracene	ug/kg	370	660	ND	
SC-036	Nov-01	Benzo(b)fluoranthene	ug/kg	370	660	ND	
SC-036	Nov-01	Benzo(k)fluoranthene	ug/kg	370	660	ND	
SC-036	Nov-01	Benzo(g,h,i)perylene	ug/kg	370	330	ND	
SC-036	Nov-01	Benzo(a)pyrene	ug/kg	370	660	ND	
SC-036	Nov-01	Bis(2-ethylhexyl)phthalate	ug/kg	370	660	ND	
SC-036	Nov-01	Butyl benzyl phthalate	ug/kg	370	660	ND	
SC-036	Nov-01	Chrysene	ug/kg	370	660	ND	
SC-036	Nov-01	Di-n-butyl phthalate	ug/kg	370	660	ND	
SC-036	Nov-01	Di-n-octyl phthalate	ug/kg	370	660	ND	
SC-036	Nov-01	Dibenz(a,h)anthracene	ug/kg	370	660	ND	
SC-036	Nov-01	Dibenz(a,h)acridine	ug/kg	370	330	ND	
SC-036	Nov-01	Diethyl phthalate	ug/kg	370	660	ND	
SC-036	Nov-01	Dimethyl phthalate	ug/kg	370	660	ND	
SC-036	Nov-01	Fluoranthene	ug/kg	370	660	ND	
SC-036	Nov-01	Fluorene	ug/kg	370	330	ND	
SC-036	Nov-01	Indene	ug/kg	370	330	ND	
SC-036	Nov-01	Indeno(1,2,3-cd)pyrene	ug/kg	370	330	ND	
SC-036	Nov-01	Naphthalene	ug/kg	370	660	ND	
SC-036	Nov-01	Phenanthrene	ug/kg	370	660	ND	
SC-036	Nov-01	Phenol	ug/kg	370	660	ND	
SC-036	Nov-01	Pyrene	ug/kg	370	660	ND	
SC-036	Nov-01	Pyridine	ug/kg	730	660	ND	
SC-036	Nov-01	Quinoline	ug/kg	370	330	ND	
SC-036	Nov-01	Antimony	mg/kg	1.7	6.69	ND	

Table I-8. Summary of Soil Analytical Data for Unsaturated Zone Monitoring – Years 1-10 (continued)

Sample ID	Date	Constituent	Units	Reporting Limit	Monitoring Limit	Result	Flag
SC-036	Nov-01	Arsenic	mg/kg		55.5	8.4	
SC-036	Nov-01	Barium	mg/kg		1028	37.5	
SC-036	Nov-01	Beryllium	mg/kg		2.53	0.5	
SC-036	Nov-01	Cadmium	mg/kg		9.11	0.24	
SC-036	Nov-01	Chromium	mg/kg		368	16.3	
SC-036	Nov-01	Cobalt	mg/kg		60.1	9.7	
SC-036	Nov-01	Lead	mg/kg		504	10.8	
SC-036	Nov-01	Mercury	mg/kg	0.038	0.9	ND	
SC-036	Nov-01	Nickel	mg/kg		138	26.1	
SC-036	Nov-01	Selenium	mg/kg	1.1	0.56	ND	
SC-036	Nov-01	Vanadium	mg/kg		446	20.3	
SC-037	Nov-01	1,2-Dichloroethane	ug/kg	5	5	ND	
SC-037	Nov-01	1,2-Dibromoethane (Ethylene Dibromide)	ug/kg	5	10	ND	
SC-037	Nov-01	1,2,4-Trimethylbenzene	ug/kg	5	5	ND	
SC-037	Nov-01	1,3,5-Trimethylbenzene	ug/kg	5	5	ND	
SC-037	Nov-01	2-Butanone (MEK)	ug/kg	5	20	ND	
SC-037	Nov-01	4-Isopropyltoluene (p-Isopropyltoluene)	ug/kg	5	5	ND	
SC-037	Nov-01	Acetone	ug/kg	5	20	ND	
SC-037	Nov-01	Benzene	ug/kg	5	5	ND	
SC-037	Nov-01	n-Butylbenzene	ug/kg	5	5	ND	
SC-037	Nov-01	sec-Butylbenzene	ug/kg	5	5	ND	
SC-037	Nov-01	Carbon Disulfide	ug/kg	5	5	ND	
SC-037	Nov-01	Chlorobenzene	ug/kg	5	5	ND	
SC-037	Nov-01	Chloroform	ug/kg	5	5	ND	
SC-037	Nov-01	Ethylbenzene	ug/kg	5	5	ND	
SC-037	Nov-01	n-Propylbenzene	ug/kg	5	5	ND	
SC-037	Nov-01	Styrene	ug/kg	5	5	ND	
SC-037	Nov-01	Toluene	ug/kg	5	5	ND	
SC-037	Nov-01	Xylenes	ug/kg	5	5	ND	

Table I-8. Summary of Soil Analytical Data for Unsaturated Zone Monitoring – Years 1-10 (continued)

Sample ID	Date	Constituent	Units	Reporting Limit	Monitoring Limit	Result	Flag
SC-037	Nov-01	1-Methylnaphthalene	ug/kg	360	660	ND	
SC-037	Nov-01	1,2-Dichlorobenzene	ug/kg	360	660	ND	
SC-037	Nov-01	1,3-Dichlorobenzene	ug/kg	360	660	ND	
SC-037	Nov-01	1,4-Dichlorobenzene	ug/kg	360	660	ND	
SC-037	Nov-01	1,4-Dioxane	ug/kg	1400	500	ND	
SC-037	Nov-01	2-Methylnaphthalene	ug/kg	360	330	ND	
SC-037	Nov-01	2-Methylphenol (O-Cresol)	ug/kg	360	660	ND	
SC-037	Nov-01	2,4-Dimethylphenol	ug/kg	360	660	ND	
SC-037	Nov-01	2,4-Dinitrophenol	ug/kg	1800	3300	ND	
SC-037	Nov-01	4-Methylphenol (M/P-Cresol)	ug/kg	360	660	ND	
SC-037	Nov-01	4-Nitrophenol	ug/kg	1800	3300	ND	
SC-037	Nov-01	Methyl Chrysene (6-Methylchrysene)	ug/kg	360	330	ND	
SC-037	Nov-01	7,12-Dimethylbenz(a)anthracene	ug/kg	760	660	ND	
SC-037	Nov-01	Acenaphthylene	ug/kg	360	330	ND	
SC-037	Nov-01	Anthracene	ug/kg	360	660	ND	
SC-037	Nov-01	Benzenethiol	ug/kg	360	3300	ND	
SC-037	Nov-01	Benzo(a)anthracene	ug/kg	360	660	ND	
SC-037	Nov-01	Benzo(b)fluoranthene	ug/kg	360	660	ND	
SC-037	Nov-01	Benzo(k)fluoranthene	ug/kg	360	660	ND	
SC-037	Nov-01	Benzo(g,h,i)perylene	ug/kg	360	330	ND	
SC-037	Nov-01	Benzo(a)pyrene	ug/kg	360	660	ND	
SC-037	Nov-01	Bis(2-ethylhexyl)phthalate	ug/kg	360	660	ND	
SC-037	Nov-01	Butyl benzyl phthalate	ug/kg	360	660	ND	
SC-037	Nov-01	Chrysene	ug/kg	360	660	ND	
SC-037	Nov-01	Di-n-butyl phthalate	ug/kg	360	660	ND	
SC-037	Nov-01	Di-n-octyl phthalate	ug/kg	360	660	ND	
SC-037	Nov-01	Dibenz(a,h)anthracene	ug/kg	360	660	ND	
SC-037	Nov-01	Dibenz(a,h)acridine	ug/kg	360	330	ND	
SC-037	Nov-01	Diethyl phthalate	ug/kg	360	660	ND	

Table I-8. Summary of Soil Analytical Data for Unsaturated Zone Monitoring – Years 1-10 (continued)

Sample ID	Date	Constituent	Units	Reporting Limit	Monitoring Limit	Result	Flag
SC-037	Nov-01	Dimethyl phthalate	ug/kg	360	660	ND	
SC-037	Nov-01	Fluoranthene	ug/kg	360	660	ND	
SC-037	Nov-01	Fluorene	ug/kg	360	330	ND	
SC-037	Nov-01	Indene	ug/kg	360	330	ND	
SC-037	Nov-01	Indeno(1,2,3-cd)pyrene	ug/kg	360	330	ND	
SC-037	Nov-01	Naphtalene	ug/kg	360	660	ND	
SC-037	Nov-01	Phenanthrene	ug/kg	360	660	ND	
SC-037	Nov-01	Phenol	ug/kg	360	660	ND	
SC-037	Nov-01	Pyrene	ug/kg	360	660	ND	
SC-037	Nov-01	Pyridine	ug/kg	730	660	ND	
SC-037	Nov-01	Quinoline	ug/kg	360	330	ND	
SC-037	Nov-01	Antimony	mg/kg	1.3	6.69	ND	
SC-037	Nov-01	Arsenic	mg/kg		55.5	7.4	
SC-037	Nov-01	Barium	mg/kg		1028	35	
SC-037	Nov-01	Beryllium	mg/kg		2.53	0.46	
SC-037	Nov-01	Cadmium	mg/kg		9.11	0.27	
SC-037	Nov-01	Chromium	mg/kg		368	14.4	
SC-037	Nov-01	Cobalt	mg/kg		60.1	7.5	
SC-037	Nov-01	Lead	mg/kg		504	9.2	
SC-037	Nov-01	Mercury	mg/kg	0.036	0.9	ND	
SC-037	Nov-01	Nickel	mg/kg		138	20.4	
SC-037	Nov-01	Selenium	mg/kg	0.67	0.56	ND	
SC-037	Nov-01	Vanadium	mg/kg		446	18.2	
SC-038	Nov-01	1,2-Dichloroethane	ug/kg	6	5	ND	
SC-038	Nov-01	1,2-Dibromoethane (Ethylene Dibromide)	ug/kg	6	10	ND	
SC-038	Nov-01	1,2,4-Trimethylbenzene	ug/kg	6	5	ND	
SC-038	Nov-01	1,3,5-Trimethylbenzene	ug/kg	6	5	ND	
SC-038	Nov-01	2-Butanone (MEK)	ug/kg	6	20	ND	
SC-038	Nov-01	4-Isopropyltoluene (p-Isopropyltoluene)	ug/kg	6	5	ND	

Table I-8. Summary of Soil Analytical Data for Unsaturated Zone Monitoring – Years 1-10 (continued)

Sample ID	Date	Constituent	Units	Reporting Limit	Monitoring Limit	Result	Flag
SC-038	Nov-01	Acetone	ug/kg	6	20	ND	
SC-038	Nov-01	Benzene	ug/kg	6	5	ND	
SC-038	Nov-01	n-Butylbenzene	ug/kg	6	5	ND	
SC-038	Nov-01	sec-Butylbenzene	ug/kg	6	5	ND	
SC-038	Nov-01	Carbon Disulfide	ug/kg	6	5	ND	
SC-038	Nov-01	Chlorobenzene	ug/kg	6	5	ND	
SC-038	Nov-01	Chloroform	ug/kg	6	5	ND	
SC-038	Nov-01	Ethylbenzene	ug/kg	6	5	ND	
SC-038	Nov-01	n-Propylbenzene	ug/kg	6	5	ND	
SC-038	Nov-01	Styrene	ug/kg	6	5	ND	
SC-038	Nov-01	Toluene	ug/kg	6	5	ND	
SC-038	Nov-01	Xylenes	ug/kg	6	5	ND	
SC-038	Nov-01	1-Methylnaphthalene	ug/kg	370	660	ND	
SC-038	Nov-01	1,2-Dichlorobenzene	ug/kg	370	660	ND	
SC-038	Nov-01	1,3-Dichlorobenzene	ug/kg	370	660	ND	
SC-038	Nov-01	1,4-Dichlorobenzene	ug/kg	370	660	ND	
SC-038	Nov-01	1,4-Dioxane	ug/kg	1500	500	ND	
SC-038	Nov-01	2-Methylnaphthalene	ug/kg	370	330	ND	
SC-038	Nov-01	2-Methylphenol (O-Cresol)	ug/kg	370	660	ND	
SC-038	Nov-01	2,4-Dimethylphenol	ug/kg	370	660	ND	
SC-038	Nov-01	2,4-Dinitrophenol	ug/kg	1900	3300	ND	
SC-038	Nov-01	4-Methylphenol (M/P-Cresol)	ug/kg	370	660	ND	
SC-038	Nov-01	4-Nitrophenol	ug/kg	1900	3300	ND	
SC-038	Nov-01	Methyl Chrysene (6-Methylchrysene)	ug/kg	370	330	ND	
SC-038	Nov-01	7,12-Dimethylbenz(a)anthracene	ug/kg	760	660	ND	
SC-038	Nov-01	Acenaphthylene	ug/kg	370	330	ND	
SC-038	Nov-01	Anthracene	ug/kg	370	660	ND	
SC-038	Nov-01	Benzenethiol	ug/kg	370	3300	ND	
SC-038	Nov-01	Benzo(a)anthracene	ug/kg	370	660	ND	

Table I-8. Summary of Soil Analytical Data for Unsaturated Zone Monitoring – Years 1-10 (continued)

Sample ID	Date	Constituent	Units	Reporting Limit	Monitoring Limit	Result	Flag
SC-038	Nov-01	Benzo(b)fluoranthene	ug/kg	370	660	ND	
SC-038	Nov-01	Benzo(k)fluoranthene	ug/kg	370	660	ND	
SC-038	Nov-01	Benzo(g,h,i)perylene	ug/kg	370	330	ND	
SC-038	Nov-01	Benzo(a)pyrene	ug/kg	370	660	ND	
SC-038	Nov-01	Bis(2-ethylhexyl)phthalate	ug/kg	370	660	ND	
SC-038	Nov-01	Butyl benzyl phthalate	ug/kg	370	660	ND	
SC-038	Nov-01	Chrysene	ug/kg	370	660	ND	
SC-038	Nov-01	Di-n-butyl phthalate	ug/kg	370	660	ND	
SC-038	Nov-01	Di-n-octyl phthalate	ug/kg	370	660	ND	
SC-038	Nov-01	Dibenz(a,h)anthracene	ug/kg	370	660	ND	
SC-038	Nov-01	Dibenz(a,h)acridine	ug/kg	370	330	ND	
SC-038	Nov-01	Diethyl phthalate	ug/kg	370	660	ND	
SC-038	Nov-01	Dimethyl phthalate	ug/kg	370	660	ND	
SC-038	Nov-01	Fluoranthene	ug/kg	370	660	ND	
SC-038	Nov-01	Fluorene	ug/kg	370	330	ND	
SC-038	Nov-01	Indene	ug/kg	370	330	ND	
SC-038	Nov-01	Indeno(1,2,3-cd)pyrene	ug/kg	370	330	ND	
SC-038	Nov-01	Naphtalene	ug/kg	370	660	ND	
SC-038	Nov-01	Phenanthrene	ug/kg	370	660	ND	
SC-038	Nov-01	Phenol	ug/kg	370	660	ND	
SC-038	Nov-01	Pyrene	ug/kg	370	660	ND	
SC-038	Nov-01	Pyridine	ug/kg	760	660	ND	
SC-038	Nov-01	Quinoline	ug/kg	370	330	ND	
SC-038	Nov-01	Antimony	mg/kg	1.4	6.69	ND	
SC-038	Nov-01	Arsenic	mg/kg		55.5	9.6	
SC-038	Nov-01	Barium	mg/kg		1028	34.1	
SC-038	Nov-01	Beryllium	mg/kg		2.53	0.5	
SC-038	Nov-01	Cadmium	mg/kg		9.11	0.32	
SC-038	Nov-01	Chromium	mg/kg		368	15.9	

Table I-8. Summary of Soil Analytical Data for Unsaturated Zone Monitoring – Years 1-10 (continued)

Sample ID	Date	Constituent	Units	Reporting Limit	Monitoring Limit	Result	Flag
SC-038	Nov-01	Cobalt	mg/kg		60.1	9.8	
SC-038	Nov-01	Lead	mg/kg		504	11.7	
SC-038	Nov-01	Mercury	mg/kg	0.038	0.9	ND	
SC-038	Nov-01	Nickel	mg/kg		138	24.7	
SC-038	Nov-01	Selenium	mg/kg	0.68	0.56	ND	
SC-038	Nov-01	Vanadium	mg/kg		446	19.8	
SC-039	Nov-01	1,2-Dichloroethane	ug/kg	5	5	ND	
SC-039	Nov-01	1,2-Dibromoethane (Ethylene Dibromide)	ug/kg	5	10	ND	
SC-039	Nov-01	1,2,4-Trimethylbenzene	ug/kg	5	5	ND	
SC-039	Nov-01	1,3,5-Trimethylbenzene	ug/kg	5	5	ND	
SC-039	Nov-01	2-Butanone (MEK)	ug/kg	5	20	ND	
SC-039	Nov-01	4-Isopropyltoluene (p-Isopropyltoluene)	ug/kg	5	5	ND	
SC-039	Nov-01	Acetone	ug/kg	5	20	ND	
SC-039	Nov-01	Benzene	ug/kg	5	5	ND	
SC-039	Nov-01	n-Butylbenzene	ug/kg	5	5	ND	
SC-039	Nov-01	sec-Butylbenzene	ug/kg	5	5	ND	
SC-039	Nov-01	Carbon Disulfide	ug/kg	5	5	ND	
SC-039	Nov-01	Chlorobenzene	ug/kg	5	5	ND	
SC-039	Nov-01	Chloroform	ug/kg	5	5	ND	
SC-039	Nov-01	Ethylbenzene	ug/kg	5	5	ND	
SC-039	Nov-01	n-Propylbenzene	ug/kg	5	5	ND	
SC-039	Nov-01	Styrene	ug/kg	5	5	ND	
SC-039	Nov-01	Toluene	ug/kg	5	5	ND	
SC-039	Nov-01	Xylenes	ug/kg	5	5	ND	
SC-039	Nov-01	1-Methylnaphthalene	ug/kg	360	660	ND	
SC-039	Nov-01	1,2-Dichlorobenzene	ug/kg	360	660	ND	
SC-039	Nov-01	1,3-Dichlorobenzene	ug/kg	360	660	ND	
SC-039	Nov-01	1,4-Dichlorobenzene	ug/kg	360	660	ND	
SC-039	Nov-01	1,4-Dioxane	ug/kg	1400	500	ND	

Table I-8. Summary of Soil Analytical Data for Unsaturated Zone Monitoring – Years 1-10 (continued)

Sample ID	Date	Constituent	Units	Reporting Limit	Monitoring Limit	Result	Flag
SC-039	Nov-01	2-Methylnaphthalene	ug/kg	360	330	ND	
SC-039	Nov-01	2-Methylphenol (O-Cresol)	ug/kg	360	660	ND	
SC-039	Nov-01	2,4-Dimethylphenol	ug/kg	360	660	ND	
SC-039	Nov-01	2,4-Dinitrophenol	ug/kg	1900	3300	ND	
SC-039	Nov-01	4-Methylphenol (M/P-Cresol)	ug/kg	360	660	ND	
SC-039	Nov-01	4-Nitrophenol	ug/kg	1900	3300	ND	
SC-039	Nov-01	Methyl Chrysene (6-Methylchrysene)	ug/kg	360	330	ND	
SC-039	Nov-01	7,12-Dimethylbenz(a)anthracene	ug/kg	730	660	ND	
SC-039	Nov-01	Acenaphthylene	ug/kg	360	330	ND	
SC-039	Nov-01	Anthracene	ug/kg	360	660	ND	
SC-039	Nov-01	Benzenethiol	ug/kg	360	3300	ND	
SC-039	Nov-01	Benzo(a)anthracene	ug/kg	360	660	ND	
SC-039	Nov-01	Benzo(b)fluoranthene	ug/kg	360	660	ND	
SC-039	Nov-01	Benzo(k)fluoranthene	ug/kg	360	660	ND	
SC-039	Nov-01	Benzo(g,h,i)perylene	ug/kg	360	330	ND	
SC-039	Nov-01	Benzo(a)pyrene	ug/kg	360	660	ND	
SC-039	Nov-01	Bis(2-ethylhexyl)phthalate	ug/kg	360	660	ND	
SC-039	Nov-01	Butyl benzyl phthalate	ug/kg	360	660	ND	
SC-039	Nov-01	Chrysene	ug/kg	360	660	ND	
SC-039	Nov-01	Di-n-butyl phthalate	ug/kg	360	660	ND	
SC-039	Nov-01	Di-n-octyl phthalate	ug/kg	360	660	ND	
SC-039	Nov-01	Dibenz(a,h)anthracene	ug/kg	360	660	ND	
SC-039	Nov-01	Dibenz(a,h)acridine	ug/kg	360	330	ND	
SC-039	Nov-01	Diethyl phthalate	ug/kg	360	660	ND	
SC-039	Nov-01	Dimethyl phthalate	ug/kg	360	660	ND	
SC-039	Nov-01	Fluoranthene	ug/kg	360	660	ND	
SC-039	Nov-01	Fluorene	ug/kg	360	330	ND	
SC-039	Nov-01	Indene	ug/kg	360	330	ND	
SC-039	Nov-01	Indeno(1,2,3-cd)pyrene	ug/kg	360	330	ND	

Table I-8. Summary of Soil Analytical Data for Unsaturated Zone Monitoring – Years 1-10 (continued)

Sample ID	Date	Constituent	Units	Reporting Limit	Monitoring Limit	Result	Flag
SC-039	Nov-01	Naphthalene	ug/kg	360	660	ND	
SC-039	Nov-01	Phenanthrene	ug/kg	360	660	ND	
SC-039	Nov-01	Phenol	ug/kg	360	660	ND	
SC-039	Nov-01	Pyrene	ug/kg	360	660	ND	
SC-039	Nov-01	Pyridine	ug/kg	730	660	ND	
SC-039	Nov-01	Quinoline	ug/kg	360	330	ND	
SC-039	Nov-01	Antimony	mg/kg	1.5	6.69	ND	
SC-039	Nov-01	Arsenic	mg/kg		55.5	8.2	
SC-039	Nov-01	Barium	mg/kg		1028	48	
SC-039	Nov-01	Beryllium	mg/kg		2.53	0.56	
SC-039	Nov-01	Cadmium	mg/kg		9.11	0.25	
SC-039	Nov-01	Chromium	mg/kg		368	17.5	
SC-039	Nov-01	Cobalt	mg/kg		60.1	11.3	
SC-039	Nov-01	Lead	mg/kg		504	9.9	
SC-039	Nov-01	Mercury	mg/kg	0.036	0.9	ND	
SC-039	Nov-01	Nickel	mg/kg		138	34.2	
SC-039	Nov-01	Selenium	mg/kg	5	0.56	1.2	
SC-039	Nov-01	Vanadium	mg/kg		446	22.6	
SC-040	Nov-01	1,2-Dichloroethane	ug/kg	5	5	ND	
SC-040	Nov-01	1,2-Dibromoethane (Ethylene Dibromide)	ug/kg	5	10	ND	
SC-040	Nov-01	1,2,4-Trimethylbenzene	ug/kg	5	5	ND	
SC-040	Nov-01	1,3,5-Trimethylbenzene	ug/kg	5	5	ND	
SC-040	Nov-01	2-Butanone (MEK)	ug/kg	5	20	ND	
SC-040	Nov-01	4-Isopropyltoluene (p-Isopropyltoluene)	ug/kg	5	5	ND	
SC-040	Nov-01	Acetone	ug/kg	5	20	ND	
SC-040	Nov-01	Benzene	ug/kg	5	5	ND	
SC-040	Nov-01	n-Butylbenzene	ug/kg	5	5	ND	
SC-040	Nov-01	sec-Butylbenzene	ug/kg	5	5	ND	
SC-040	Nov-01	Carbon Disulfide	ug/kg	5	5	ND	

Table I-8. Summary of Soil Analytical Data for Unsaturated Zone Monitoring – Years 1-10 (continued)

Sample ID	Date	Constituent	Units	Reporting Limit	Monitoring Limit	Result	Flag
SC-040	Nov-01	Chlorobenzene	ug/kg	5	5	ND	
SC-040	Nov-01	Chloroform	ug/kg	5	5	ND	
SC-040	Nov-01	Ethylbenzene	ug/kg	5	5	ND	
SC-040	Nov-01	n-Propylbenzene	ug/kg	5	5	ND	
SC-040	Nov-01	Styrene	ug/kg	5	5	ND	
SC-040	Nov-01	Toluene	ug/kg	5	5	ND	
SC-040	Nov-01	Xylenes	ug/kg	5	5	ND	
SC-040	Nov-01	1-Methylnaphthalene	ug/kg	380	660	ND	
SC-040	Nov-01	1,2-Dichlorobenzene	ug/kg	380	660	ND	
SC-040	Nov-01	1,3-Dichlorobenzene	ug/kg	380	660	ND	
SC-040	Nov-01	1,4-Dichlorobenzene	ug/kg	380	660	ND	
SC-040	Nov-01	1,4-Dioxane	ug/kg	1500	500	ND	
SC-040	Nov-01	2-Methylnaphthalene	ug/kg	380	330	ND	
SC-040	Nov-01	2-Methylphenol (O-Cresol)	ug/kg	380	660	ND	
SC-040	Nov-01	2,4-Dimethylphenol	ug/kg	380	660	ND	
SC-040	Nov-01	2,4-Dinitrophenol	ug/kg	1900	3300	ND	
SC-040	Nov-01	4-Methylphenol (M/P-Cresol)	ug/kg	380	660	ND	
SC-040	Nov-01	4-Nitrophenol	ug/kg	1900	3300	ND	
SC-040	Nov-01	Methyl Chrysene (6-Methylchrysene)	ug/kg	380	330	ND	
SC-040	Nov-01	7,12-Dimethylbenz(a)anthracene	ug/kg	760	660	ND	
SC-040	Nov-01	Acenaphthylene	ug/kg	380	330	ND	
SC-040	Nov-01	Anthracene	ug/kg	380	660	ND	
SC-040	Nov-01	Benzenethiol	ug/kg	380	3300	ND	
SC-040	Nov-01	Benzo(a)anthracene	ug/kg	380	660	ND	
SC-040	Nov-01	Benzo(b)fluoranthene	ug/kg	380	660	ND	
SC-040	Nov-01	Benzo(k)fluoranthene	ug/kg	380	660	ND	
SC-040	Nov-01	Benzo(g,h,i)perylene	ug/kg	380	330	ND	
SC-040	Nov-01	Benzo(a)pyrene	ug/kg	380	660	ND	
SC-040	Nov-01	Bis(2-ethylhexyl)phthalate	ug/kg	380	660	ND	

Table I-8. Summary of Soil Analytical Data for Unsaturated Zone Monitoring – Years 1-10 (continued)

Sample ID	Date	Constituent	Units	Reporting Limit	Monitoring Limit	Result	Flag
SC-040	Nov-01	Butyl benzyl phthalate	ug/kg	380	660	ND	
SC-040	Nov-01	Chrysene	ug/kg	380	660	ND	
SC-040	Nov-01	Di-n-butyl phthalate	ug/kg	380	660	ND	
SC-040	Nov-01	Di-n-octyl phthalate	ug/kg	380	660	ND	
SC-040	Nov-01	Dibenz(a,h)anthracene	ug/kg	380	660	ND	
SC-040	Nov-01	Dibenz(a,b)acridine	ug/kg	380	330	ND	
SC-040	Nov-01	Diethyl phthalate	ug/kg	380	660	ND	
SC-040	Nov-01	Dimethyl phthalate	ug/kg	380	660	ND	
SC-040	Nov-01	Fluoranthene	ug/kg	380	660	ND	
SC-040	Nov-01	Fluorene	ug/kg	380	330	ND	
SC-040	Nov-01	Indene	ug/kg	380	330	ND	
SC-040	Nov-01	Indeno(1,2,3-cd)pyrene	ug/kg	380	330	ND	
SC-040	Nov-01	Naphthalene	ug/kg	380	660	ND	
SC-040	Nov-01	Phenanthrene	ug/kg	380	660	ND	
SC-040	Nov-01	Phenol	ug/kg	380	660	ND	
SC-040	Nov-01	Pyrene	ug/kg	380	660	ND	
SC-040	Nov-01	Pyridine	ug/kg	760	660	ND	
SC-040	Nov-01	Quinoline	ug/kg	380	330	ND	
SC-040	Nov-01	Antimony	mg/kg	1.4	6.69	ND	
SC-040	Nov-01	Arsenic	mg/kg		55.5	8.2	
SC-040	Nov-01	Barium	mg/kg		1028	59.3	
SC-040	Nov-01	Beryllium	mg/kg		2.53	0.59	
SC-040	Nov-01	Cadmium	mg/kg		9.11	0.33	
SC-040	Nov-01	Chromium	mg/kg		368	18.5	
SC-040	Nov-01	Cobalt	mg/kg		60.1	10.2	
SC-040	Nov-01	Lead	mg/kg		504	11.1	
SC-040	Nov-01	Mercury	mg/kg	0.038	0.9	ND	
SC-040	Nov-01	Nickel	mg/kg		138	27.1	
SC-040	Nov-01	Selenium	mg/kg	0.72	0.56	ND	

Table I-8. Summary of Soil Analytical Data for Unsaturated Zone Monitoring – Years 1-10 (continued)

Sample ID	Date	Constituent	Units	Reporting Limit	Monitoring Limit	Result	Flag
SC-040	Nov-01	Vanadium	mg/kg		446	22.5	
SC-041	Oct-02	Acetone	ug/kg	5.2	20	ND	
SC-041	Oct-02	Benzene	ug/kg	0.83	5	ND	
SC-041	Oct-02	n-Butylbenzene	ug/kg	1.1	5	ND	
SC-041	Oct-02	sec-Butylbenzene	ug/kg	1	5	ND	
SC-041	Oct-02	Ethylbenzene	ug/kg	1.4	5	ND	
SC-041	Oct-02	4-Isopropyltoluene (p-Isopropyltoluene)	ug/kg	0.86	5	ND	
SC-041	Oct-02	n-Propylbenzene	ug/kg	1.1	5	ND	
SC-041	Oct-02	Toluene	ug/kg	1.3	5	ND	
SC-041	Oct-02	1,2,4-Trimethylbenzene	ug/kg	1	5	ND	
SC-041	Oct-02	1,3,5-Trimethylbenzene	ug/kg	0.73	5	ND	
SC-041	Oct-02	Xylenes	ug/kg	3.7	5	ND	
SC-041	Oct-02	2-Butanone (MEK)	ug/kg	5.3	20	ND	
SC-041	Oct-02	Acenaphthylene	ug/kg	390	330	ND	
SC-041	Oct-02	Anthracene	ug/kg	390	660	ND	
SC-041	Oct-02	Benzo(a)anthracene	ug/kg	390	660	ND	
SC-041	Oct-02	Benzo(g,h,i)perylene	ug/kg	390	330	ND	
SC-041	Oct-02	Butyl benzyl phthalate	ug/kg	390	660	ND	
SC-041	Oct-02	Chrysene	ug/kg	390	660	ND	
SC-041	Oct-02	Di-n-octyl phthalate	ug/kg	390	660	ND	
SC-041	Oct-02	Dibenz(a,h)anthracene	ug/kg	390	660	ND	
SC-041	Oct-02	Fluorene	ug/kg	390	330	ND	
SC-041	Oct-02	Indeno(1,2,3-cd)pyrene	ug/kg	390	330	ND	
SC-041	Oct-02	Methyl Chrysene (6-Methylchrysene)	ug/kg	390	330	ND	
SC-041	Oct-02	1-Methylnaphthalene	ug/kg	390	660	ND	
SC-041	Oct-02	2-Methylnaphthalene	ug/kg	390	330	ND	
SC-041	Oct-02	Naphthalene	ug/kg	390	660	ND	
SC-041	Oct-02	Phenanthrene	ug/kg	390	660	ND	
SC-041	Oct-02	Pyrene	ug/kg	390	660	ND	

Table I-8. Summary of Soil Analytical Data for Unsaturated Zone Monitoring – Years 1-10 (continued)

Sample ID	Date	Constituent	Units	Reporting Limit	Monitoring Limit	Result	Flag
SC-041	Oct-02	Antimony	mg/kg	2.3	6.69	ND	
SC-041	Oct-02	Arsenic	mg/kg		55.5	8.8	
SC-041	Oct-02	Barium	mg/kg		1028	59	
SC-041	Oct-02	Beryllium	mg/kg		2.53	0.53	
SC-041	Oct-02	Cadmium	mg/kg	0.23	9.11	ND	
SC-041	Oct-02	Chromium	mg/kg		368	23	
SC-041	Oct-02	Cobalt	mg/kg		60.1	11	
SC-041	Oct-02	Lead	mg/kg		504	13	
SC-041	Oct-02	Mercury	mg/kg	0.039	0.9	ND	
SC-041	Oct-02	Nickel	mg/kg		138	31	
SC-041	Oct-02	Selenium	mg/kg	0.22	0.56	ND	
SC-041	Oct-02	Vanadium	mg/kg		446	26	
SC-042	Oct-02	Volatile Organic Compounds					
SC-042	Oct-02	Acetone	ug/kg	4.9	20	ND	
SC-042	Oct-02	Benzene	ug/kg	0.78	5	ND	
SC-042	Oct-02	n-Butylbenzene	ug/kg	1	5	ND	
SC-042	Oct-02	sec-Butylbenzene	ug/kg	0.96	5	ND	
SC-042	Oct-02	Ethylbenzene	ug/kg	1.3	5	ND	
SC-042	Oct-02	4-Isopropyltoluene (p-Isopropyltoluene)	ug/kg	0.81	5	ND	
SC-042	Oct-02	n-Propylbenzene	ug/kg	1	5	ND	
SC-042	Oct-02	Toluene	ug/kg	1.2	5	ND	
SC-042	Oct-02	1,2,4-Trimethylbenzene	ug/kg	0.97	5	ND	
SC-042	Oct-02	1,3,5-Trimethylbenzene	ug/kg	0.69	5	ND	
SC-042	Oct-02	Xylenes	ug/kg	3.4	5	ND	
SC-042	Oct-02	2-Butanone (MEK)	ug/kg	5	20	ND	
SC-042	Oct-02	Acenaphthylene	ug/kg	380	330	ND	
SC-042	Oct-02	Anthracene	ug/kg	380	660	ND	
SC-042	Oct-02	Benzo(a)anthracene	ug/kg	380	660	ND	
SC-042	Oct-02	Benzo(g,h,i)perylene	ug/kg	380	330	ND	

Table I-8. Summary of Soil Analytical Data for Unsaturated Zone Monitoring – Years 1-10 (continued)

Sample ID	Date	Constituent	Units	Reporting Limit	Monitoring Limit	Result	Flag
SC-042	Oct-02	Butyl benzyl phthalate	ug/kg	380	660	ND	
SC-042	Oct-02	Chrysene	ug/kg	380	660	ND	
SC-042	Oct-02	Di-n-octyl phthalate	ug/kg	380	660	ND	
SC-042	Oct-02	Dibenz(a,h)anthracene	ug/kg	380	660	ND	
SC-042	Oct-02	Fluorene	ug/kg	380	330	ND	
SC-042	Oct-02	Indeno(1,2,3-cd)pyrene	ug/kg	380	330	ND	
SC-042	Oct-02	Methyl Chrysene (6-Methylchrysene)	ug/kg	380	330	ND	
SC-042	Oct-02	1-Methylnaphthalene	ug/kg	380	660	ND	
SC-042	Oct-02	2-Methylnaphthalene	ug/kg	380	330	ND	
SC-042	Oct-02	Naphthalene	ug/kg	380	660	ND	
SC-042	Oct-02	Phenanthrene	ug/kg	380	660	ND	
SC-042	Oct-02	Pyrene	ug/kg	380	660	ND	
SC-042	Oct-02	Antimony	mg/kg	2.1	6.69	ND	
SC-042	Oct-02	Arsenic	mg/kg		55.5	11	
SC-042	Oct-02	Barium	mg/kg		1028	35	
SC-042	Oct-02	Beryllium	mg/kg		2.53	0.43	
SC-042	Oct-02	Cadmium	mg/kg	0.21	9.11	ND	
SC-042	Oct-02	Chromium	mg/kg		368	15	
SC-042	Oct-02	Cobalt	mg/kg		60.1	9.1	
SC-042	Oct-02	Lead	mg/kg		504	16	
SC-042	Oct-02	Mercury	mg/kg	0.038	0.9	ND	
SC-042	Oct-02	Nickel	mg/kg		138	28	
SC-042	Oct-02	Selenium	mg/kg	0.23	0.56	ND	
SC-042	Oct-02	Vanadium	mg/kg		446	18	
SC-043	Oct-02	Acetone	ug/kg	5.2	20	ND	
SC-043	Oct-02	Benzene	ug/kg	0.84	5	ND	
SC-043	Oct-02	n-Butylbenzene	ug/kg	1.1	5	ND	
SC-043	Oct-02	sec-Butylbenzene	ug/kg	1	5	ND	
SC-043	Oct-02	Ethylbenzene	ug/kg	1.4	5	ND	

Table I-8. Summary of Soil Analytical Data for Unsaturated Zone Monitoring – Years 1-10 (continued)

Sample ID	Date	Constituent	Units	Reporting Limit	Monitoring Limit	Result	Flag
SC-043	Oct-02	4-Isopropyltoluene (p-Isopropyltoluene)	ug/kg	0.86	5	ND	
SC-043	Oct-02	n-Propylbenzene	ug/kg	1.1	5	ND	
SC-043	Oct-02	Toluene	ug/kg	1.3	5	ND	
SC-043	Oct-02	1,2,4-Trimethylbenzene	ug/kg	1	5	ND	
SC-043	Oct-02	1,3,5-Trimethylbenzene	ug/kg	0.74	5	ND	
SC-043	Oct-02	Xylenes	ug/kg	3.7	5	ND	
SC-043	Oct-02	2-Butanone (MEK)	ug/kg	5.3	20	ND	
SC-043	Oct-02	Acenaphthylene	ug/kg	380	330	ND	
SC-043	Oct-02	Anthracene	ug/kg	380	660	ND	
SC-043	Oct-02	Benzo(a)anthracene	ug/kg	380	660	ND	
SC-043	Oct-02	Benzo(g,h,i)perylene	ug/kg	380	330	ND	
SC-043	Oct-02	Butyl benzyl phthalate	ug/kg	380	660	ND	
SC-043	Oct-02	Chrysene	ug/kg	380	660	ND	
SC-043	Oct-02	Di-n-octyl phthalate	ug/kg	380	660	ND	
SC-043	Oct-02	Dibenz(a,h)anthracene	ug/kg	380	660	ND	
SC-043	Oct-02	Fluorene	ug/kg	380	330	ND	
SC-043	Oct-02	Indeno(1,2,3-cd)pyrene	ug/kg	380	330	ND	
SC-043	Oct-02	Methyl Chrysene (6-Methylchrysene)	ug/kg	380	330	ND	
SC-043	Oct-02	1-Methylnaphthalene	ug/kg	380	660	ND	
SC-043	Oct-02	2-Methylnaphthalene	ug/kg	380	330	ND	
SC-043	Oct-02	Naphthalene	ug/kg	380	660	ND	
SC-043	Oct-02	Phenanthrene	ug/kg	380	660	ND	
SC-043	Oct-02	Pyrene	ug/kg	380	660	ND	
SC-043	Oct-02	Antimony	mg/kg	2.3	6.69	ND	
SC-043	Oct-02	Arsenic	mg/kg		55.5	13	
SC-043	Oct-02	Barium	mg/kg		1028	55	
SC-043	Oct-02	Beryllium	mg/kg		2.53	0.49	
SC-043	Oct-02	Cadmium	mg/kg	0.23	9.11	ND	
SC-043	Oct-02	Chromium	mg/kg		368	19	

Table I-8. Summary of Soil Analytical Data for Unsaturated Zone Monitoring – Years 1-10 (continued)

Sample ID	Date	Constituent	Units	Reporting Limit	Monitoring Limit	Result	Flag
SC-043	Oct-02	Cobalt	mg/kg		60.1	13	
SC-043	Oct-02	Lead	mg/kg		504	16	
SC-043	Oct-02	Mercury	mg/kg	0.039	0.9	ND	
SC-043	Oct-02	Nickel	mg/kg		138	34	
SC-043	Oct-02	Selenium	mg/kg	0.2	0.56	ND	
SC-043	Oct-02	Vanadium	mg/kg		446	21	
SC-044	Oct-02	Acetone	ug/kg	4	20	ND	
SC-044	Oct-02	Benzene	ug/kg	0.64	5	ND	
SC-044	Oct-02	n-Butylbenzene	ug/kg	0.81	5	ND	
SC-044	Oct-02	sec-Butylbenzene	ug/kg	0.78	5	ND	
SC-044	Oct-02	Ethylbenzene	ug/kg	1.1	5	ND	
SC-044	Oct-02	4-Isopropyltoluene (p-Isopropyltoluene)	ug/kg	0.66	5	ND	
SC-044	Oct-02	n-Propylbenzene	ug/kg	0.83	5	ND	
SC-044	Oct-02	Toluene	ug/kg	0.97	5	ND	
SC-044	Oct-02	1,2,4-Trimethylbenzene	ug/kg	0.79	5	ND	
SC-044	Oct-02	1,3,5-Trimethylbenzene	ug/kg	0.56	5	ND	
SC-044	Oct-02	Xylenes	ug/kg	2.8	5	ND	
SC-044	Oct-02	2-Butanone (MEK)	ug/kg	4.1	20	ND	
SC-044	Oct-02	Acenaphthylene	ug/kg	360	330	ND	
SC-044	Oct-02	Anthracene	ug/kg	360	660	ND	
SC-044	Oct-02	Benzo(a)anthracene	ug/kg	360	660	ND	
SC-044	Oct-02	Benzo(g,h,i)perylene	ug/kg	360	330	ND	
SC-044	Oct-02	Butyl benzyl phthalate	ug/kg	360	660	ND	
SC-044	Oct-02	Chrysene	ug/kg	360	660	ND	
SC-044	Oct-02	Di-n-octyl phthalate	ug/kg	360	660	ND	
SC-044	Oct-02	Dibenz(a,h)anthracene	ug/kg	360	660	ND	
SC-044	Oct-02	Fluorene	ug/kg	360	330	ND	
SC-044	Oct-02	Indeno(1,2,3-cd)pyrene	ug/kg	360	330	ND	
SC-044	Oct-02	Methyl Chrysene (6-Methylchrysene)	ug/kg	360	330	ND	

Table I-8. Summary of Soil Analytical Data for Unsaturated Zone Monitoring – Years 1-10 (continued)

Sample ID	Date	Constituent	Units	Reporting Limit	Monitoring Limit	Result	Flag
SC-044	Oct-02	1-Methylnaphthalene	ug/kg	360	660	ND	
SC-044	Oct-02	2-Methylnaphthalene	ug/kg	360	330	ND	
SC-044	Oct-02	Naphthalene	ug/kg	360	660	ND	
SC-044	Oct-02	Phenanthrene	ug/kg	360	660	ND	
SC-044	Oct-02	Pyrene	ug/kg	360	660	ND	
SC-044	Oct-02	Antimony	mg/kg	2	6.69	ND	
SC-044	Oct-02	Arsenic	mg/kg		55.5	9.3	
SC-044	Oct-02	Barium	mg/kg		1028	28	
SC-044	Oct-02	Beryllium	mg/kg	0.4	2.53	ND	
SC-044	Oct-02	Cadmium	mg/kg	0.2	9.11	ND	
SC-044	Oct-02	Chromium	mg/kg		368	12	
SC-044	Oct-02	Cobalt	mg/kg		60.1	7.6	
SC-044	Oct-02	Lead	mg/kg		504	9.9	
SC-044	Oct-02	Mercury	mg/kg	0.036	0.9	ND	
SC-044	Oct-02	Nickel	mg/kg		138	20	
SC-044	Oct-02	Selenium	mg/kg	0.19	0.56	ND	
SC-044	Oct-02	Vanadium	mg/kg		446	15	
SC-044-Duplicate	Oct-02	Acetone	ug/kg	4	20	ND	
SC-044-Duplicate	Oct-02	Benzene	ug/kg	0.64	5	ND	
SC-044-Duplicate	Oct-02	n-Butylbenzene	ug/kg	0.81	5	ND	
SC-044-Duplicate	Oct-02	sec-Butylbenzene	ug/kg	0.78	5	ND	
SC-044-Duplicate	Oct-02	Ethylbenzene	ug/kg	1.1	5	ND	
SC-044-Duplicate	Oct-02	4-Isopropyltoluene (p-Isopropyltoluene)	ug/kg	0.66	5	ND	
SC-044-Duplicate	Oct-02	n-Propylbenzene	ug/kg	0.83	5	ND	
SC-044-Duplicate	Oct-02	Toluene	ug/kg	0.96	5	ND	
SC-044-Duplicate	Oct-02	1,2,4-Trimethylbenzene	ug/kg	0.79	5	ND	
SC-044-Duplicate	Oct-02	1,3,5-Trimethylbenzene	ug/kg	0.56	5	ND	
SC-044-Duplicate	Oct-02	Xylenes	ug/kg	2.8	5	ND	
SC-044-Duplicate	Oct-02	2-Butanone (MEK)	ug/kg	4	20	ND	

Table I-8. Summary of Soil Analytical Data for Unsaturated Zone Monitoring – Years 1-10 (continued)

Sample ID	Date	Constituent	Units	Reporting Limit	Monitoring Limit	Result	Flag
SC-044-Duplicate	Oct-02	Acenaphthylene	ug/kg	360	330	ND	
SC-044-Duplicate	Oct-02	Anthracene	ug/kg	360	660	ND	
SC-044-Duplicate	Oct-02	Benzo(a)anthracene	ug/kg	360	660	ND	
SC-044-Duplicate	Oct-02	Benzo(g,h,i)perylene	ug/kg	360	330	ND	
SC-044-Duplicate	Oct-02	Butyl benzyl phthalate	ug/kg	360	660	ND	
SC-044-Duplicate	Oct-02	Chrysene	ug/kg	360	660	ND	
SC-044-Duplicate	Oct-02	Di-n-octyl phthalate	ug/kg	360	660	ND	
SC-044-Duplicate	Oct-02	Dibenz(a,h)anthracene	ug/kg	360	660	ND	
SC-044-Duplicate	Oct-02	Fluorene	ug/kg	360	330	ND	
SC-044-Duplicate	Oct-02	Indeno(1,2,3-cd)pyrene	ug/kg	360	330	ND	
SC-044-Duplicate	Oct-02	Methyl Chrysene (6-Methylchrysene)	ug/kg	360	330	ND	
SC-044-Duplicate	Oct-02	1-Methylnaphthalene	ug/kg	360	660	ND	
SC-044-Duplicate	Oct-02	2-Methylnaphthalene	ug/kg	360	330	ND	
SC-044-Duplicate	Oct-02	Naphthalene	ug/kg	360	660	ND	
SC-044-Duplicate	Oct-02	Phenanthrene	ug/kg	360	660	ND	
SC-044-Duplicate	Oct-02	Pyrene	ug/kg	360	660	ND	
SC-044-Duplicate	Oct-02	Antimony	mg/kg	1.9	6.69	ND	
SC-044-Duplicate	Oct-02	Arsenic	mg/kg		55.5	9.2	
SC-044-Duplicate	Oct-02	Barium	mg/kg		1028	17	
SC-044-Duplicate	Oct-02	Beryllium	mg/kg	0.38	2.53	ND	
SC-044-Duplicate	Oct-02	Cadmium	mg/kg	0.22	9.11	0.22	
SC-044-Duplicate	Oct-02	Chromium	mg/kg		368	5.3	
SC-044-Duplicate	Oct-02	Cobalt	mg/kg		60.1	5.1	
SC-044-Duplicate	Oct-02	Lead	mg/kg		504	9.2	
SC-044-Duplicate	Oct-02	Mercury	mg/kg	0.036	0.9	ND	
SC-044-Duplicate	Oct-02	Nickel	mg/kg		138	16	
SC-044-Duplicate	Oct-02	Selenium	mg/kg	0.22	0.56	ND	
SC-044-Duplicate	Oct-02	Vanadium	mg/kg		446	7.6	
SC-045	Oct-02	Acetone	ug/kg	4.9	20	ND	

Table I-8. Summary of Soil Analytical Data for Unsaturated Zone Monitoring – Years 1-10 (continued)

Sample ID	Date	Constituent	Units	Reporting Limit	Monitoring Limit	Result	Flag
SC-045	Oct-02	Benzene	ug/kg	0.79	5	ND	
SC-045	Oct-02	n-Butylbenzene	ug/kg	1	5	ND	
SC-045	Oct-02	sec-Butylbenzene	ug/kg	0.97	5	ND	
SC-045	Oct-02	Ethylbenzene	ug/kg	1.3	5	ND	
SC-045	Oct-02	4-Isopropyltoluene (p-Isopropyltoluene)	ug/kg	0.81	5	ND	
SC-045	Oct-02	n-Propylbenzene	ug/kg	1	5	ND	
SC-045	Oct-02	Toluene	ug/kg	1.2	5	ND	
SC-045	Oct-02	1,2,4-Trimethylbenzene	ug/kg	0.98	5	ND	
SC-045	Oct-02	1,3,5-Trimethylbenzene	ug/kg	0.69	5	ND	
SC-045	Oct-02	Xylenes	ug/kg	3.5	5	ND	
SC-045	Oct-02	2-Butanone (MEK)	ug/kg	5	20	ND	
SC-045	Oct-02	Acenaphthylene	ug/kg	380	330	ND	
SC-045	Oct-02	Anthracene	ug/kg	380	660	ND	
SC-045	Oct-02	Benzo(a)anthracene	ug/kg	380	660	ND	
SC-045	Oct-02	Benzo(g,h,i)perylene	ug/kg	380	330	ND	
SC-045	Oct-02	Butyl benzyl phthalate	ug/kg	380	660	ND	
SC-045	Oct-02	Chrysene	ug/kg	380	660	ND	
SC-045	Oct-02	Di-n-octyl phthalate	ug/kg	380	660	ND	
SC-045	Oct-02	Dibenz(a,h)anthracene	ug/kg	380	660	ND	
SC-045	Oct-02	Fluorene	ug/kg	380	330	ND	
SC-045	Oct-02	Indeno(1,2,3-cd)pyrene	ug/kg	380	330	ND	
SC-045	Oct-02	Methyl Chrysene (6-Methylchrysene)	ug/kg	380	330	ND	
SC-045	Oct-02	1-Methylnaphthalene	ug/kg	380	660	ND	
SC-045	Oct-02	2-Methylnaphthalene	ug/kg	380	330	ND	
SC-045	Oct-02	Naphthalene	ug/kg	380	660	ND	
SC-045	Oct-02	Phenanthrene	ug/kg	380	660	ND	
SC-045	Oct-02	Pyrene	ug/kg	380	660	ND	
SC-045	Oct-02	Antimony	mg/kg	2.2	6.69	ND	
SC-045	Oct-02	Arsenic	mg/kg		55.5	5.8	

Table I-8. Summary of Soil Analytical Data for Unsaturated Zone Monitoring – Years 1-10 (continued)

Sample ID	Date	Constituent	Units	Reporting Limit	Monitoring Limit	Result	Flag
SC-045	Oct-02	Barium	mg/kg		1028	35	
SC-045	Oct-02	Beryllium	mg/kg	0.44	2.53	ND	
SC-045	Oct-02	Cadmium	mg/kg	0.22	9.11	ND	
SC-045	Oct-02	Chromium	mg/kg		368	16	
SC-045	Oct-02	Cobalt	mg/kg		60.1	9.8	
SC-045	Oct-02	Lead	mg/kg		504	11	
SC-045	Oct-02	Mercury	mg/kg	0.038	0.9	ND	
SC-045	Oct-02	Nickel	mg/kg		138	25	
SC-045	Oct-02	Selenium	mg/kg	0.22	0.56	ND	
SC-045	Oct-02	Vanadium	mg/kg		446	20	
SC-046	Oct-02	Acetone	ug/kg	5.3	20	ND	
SC-046	Oct-02	Benzene	ug/kg	0.85	5	ND	
SC-046	Oct-02	n-Butylbenzene	ug/kg	1.1	5	ND	
SC-046	Oct-02	sec-Butylbenzene	ug/kg	1	5	ND	
SC-046	Oct-02	Ethylbenzene	ug/kg	1.4	5	ND	
SC-046	Oct-02	4-Isopropyltoluene (p-Isopropyltoluene)	ug/kg	0.88	5	ND	
SC-046	Oct-02	n-Propylbenzene	ug/kg	1.1	5	ND	
SC-046	Oct-02	Toluene	ug/kg	1.3	5	ND	
SC-046	Oct-02	1,2,4-Trimethylbenzene	ug/kg	1.1	5	ND	
SC-046	Oct-02	1,3,5-Trimethylbenzene	ug/kg	0.75	5	ND	
SC-046	Oct-02	Xylenes	ug/kg	3.7	5	ND	
SC-046	Oct-02	2-Butanone (MEK)	ug/kg	5.4	20	ND	
SC-046	Oct-02	Acenaphthylene	ug/kg	380	330	ND	
SC-046	Oct-02	Anthracene	ug/kg	380	660	ND	
SC-046	Oct-02	Benzo(a)anthracene	ug/kg	380	660	ND	
SC-046	Oct-02	Benzo(g,h,i)perylene	ug/kg	380	330	ND	
SC-046	Oct-02	Butyl benzyl phthalate	ug/kg	380	660	ND	
SC-046	Oct-02	Chrysene	ug/kg	380	660	ND	
SC-046	Oct-02	Di-n-octyl phthalate	ug/kg	380	660	ND	

Table I-8. Summary of Soil Analytical Data for Unsaturated Zone Monitoring – Years 1-10 (continued)

Sample ID	Date	Constituent	Units	Reporting Limit	Monitoring Limit	Result	Flag
SC-046	Oct-02	Dibenz(a,h)anthracene	ug/kg	380	660	ND	
SC-046	Oct-02	Fluorene	ug/kg	380	330	ND	
SC-046	Oct-02	Indene(1,2,3-cd)pyrene	ug/kg	380	330	ND	
SC-046	Oct-02	Methyl Chrysene (6-Methylchrysene)	ug/kg	380	330	ND	
SC-046	Oct-02	1-Methylnaphthalene	ug/kg	380	660	ND	
SC-046	Oct-02	2-Methylnaphthalene	ug/kg	380	330	ND	
SC-046	Oct-02	Naphthalene	ug/kg	380	660	ND	
SC-046	Oct-02	Phenanthrene	ug/kg	380	660	ND	
SC-046	Oct-02	Pyrene	ug/kg	380	660	ND	
SC-046	Oct-02	Antimony	mg/kg	2.3	6.69	ND	
SC-046	Oct-02	Arsenic	mg/kg		55.5	6.3	
SC-046	Oct-02	Barium	mg/kg		1028	34	
SC-046	Oct-02	Beryllium	mg/kg	0.46	2.53	ND	
SC-046	Oct-02	Cadmium	mg/kg	0.23	9.11	ND	
SC-046	Oct-02	Chromium	mg/kg		368	8.7	
SC-046	Oct-02	Cobalt	mg/kg		60.1	8.5	
SC-046	Oct-02	Lead	mg/kg		504	9.3	
SC-046	Oct-02	Mercury	mg/kg	0.038	0.9	ND	
SC-046	Oct-02	Nickel	mg/kg		138	18	
SC-046	Oct-02	Selenium	mg/kg	0.23	0.56	ND	
SC-046	Oct-02	Vanadium	mg/kg		446	12	
SC-047	Oct-02	Acetone	ug/kg	4.3	20	ND	
SC-047	Oct-02	Benzene	ug/kg	0.69	5	ND	
SC-047	Oct-02	n-Butylbenzene	ug/kg	0.87	5	ND	
SC-047	Oct-02	sec-Butylbenzene	ug/kg	0.84	5	ND	
SC-047	Oct-02	Ethylbenzene	ug/kg	1.1	5	ND	
SC-047	Oct-02	4-Isopropyltoluene (p-Isopropyltoluene)	ug/kg	0.71	5	ND	
SC-047	Oct-02	n-Propylbenzene	ug/kg	0.89	5	ND	
SC-047	Oct-02	Toluene	ug/kg	1	5	ND	

Table I-8. Summary of Soil Analytical Data for Unsaturated Zone Monitoring – Years 1-10 (continued)

Sample ID	Date	Constituent	Units	Reporting Limit	Monitoring Limit	Result	Flag
SC-047	Oct-02	1,2,4-Trimethylbenzene	ug/kg	0.85	5	ND	
SC-047	Oct-02	1,3,5-Trimethylbenzene	ug/kg	0.6	5	ND	
SC-047	Oct-02	Xylenes	ug/kg	3	5	ND	
SC-047	Oct-02	2-Butanone (MEK)	ug/kg	4.4	20	ND	
SC-047	Oct-02	Acenaphthylene	ug/kg	360	330	ND	
SC-047	Oct-02	Anthracene	ug/kg	360	660	ND	
SC-047	Oct-02	Benzo(a)anthracene	ug/kg	360	660	ND	
SC-047	Oct-02	Benzo(g,h,i)perylene	ug/kg	360	330	ND	
SC-047	Oct-02	Butyl benzyl phthalate	ug/kg	360	660	ND	
SC-047	Oct-02	Chrysene	ug/kg	360	660	ND	
SC-047	Oct-02	Di-n-octyl phthalate	ug/kg	360	660	ND	
SC-047	Oct-02	Dibenz(a,h)anthracene	ug/kg	360	660	ND	
SC-047	Oct-02	Fluorene	ug/kg	360	330	ND	
SC-047	Oct-02	Indeno(1,2,3-cd)pyrene	ug/kg	360	330	ND	
SC-047	Oct-02	Methyl Chrysene (6-Methylchrysene)	ug/kg	360	330	ND	
SC-047	Oct-02	1-Methylnaphthalene	ug/kg	360	660	ND	
SC-047	Oct-02	2-Methylnaphthalene	ug/kg	360	330	ND	
SC-047	Oct-02	Naphthalene	ug/kg	360	660	ND	
SC-047	Oct-02	Phenanthrene	ug/kg	360	660	ND	
SC-047	Oct-02	Pyrene	ug/kg	360	660	ND	
SC-047	Oct-02	Antimony	mg/kg	2	6.69	ND	
SC-047	Oct-02	Arsenic	mg/kg		55.5	4.9	
SC-047	Oct-02	Barium	mg/kg		1028	39	
SC-047	Oct-02	Beryllium	mg/kg		2.53	0.41	
SC-047	Oct-02	Cadmium	mg/kg	0.2	9.11	ND	
SC-047	Oct-02	Chromium	mg/kg		368	16	
SC-047	Oct-02	Cobalt	mg/kg		60.1	5.8	
SC-047	Oct-02	Lead	mg/kg		504	9.8	
SC-047	Oct-02	Mercury	mg/kg	0.035	0.9	ND	

Table I-8. Summary of Soil Analytical Data for Unsaturated Zone Monitoring – Years 1-10 (continued)

Sample ID	Date	Constituent	Units	Reporting Limit	Monitoring Limit	Result	Flag
SC-047	Oct-02	Nickel	mg/kg		138	18	
SC-047	Oct-02	Selenium	mg/kg	0.2	0.56	ND	
SC-047	Oct-02	Vanadium	mg/kg		446	21	
SC-048	Oct-02	Acetone	ug/kg	5.3	20	ND	
SC-048	Oct-02	Benzene	ug/kg	0.85	5	ND	
SC-048	Oct-02	n-Butylbenzene	ug/kg	1.1	5	ND	
SC-048	Oct-02	sec-Butylbenzene	ug/kg	1.0	5	ND	
SC-048	Oct-02	Ethylbenzene	ug/kg	1.4	5	ND	
SC-048	Oct-02	4-Isopropyltoluene (p-Isopropyltoluene)	ug/kg	0.88	5	ND	
SC-048	Oct-02	n-Propylbenzene	ug/kg	1.1	5	ND	
SC-048	Oct-02	Toluene	ug/kg	1.3	5	ND	
SC-048	Oct-02	1,2,4-Trimethylbenzene	ug/kg	1.1	5	ND	
SC-048	Oct-02	1,3,5-Trimethylbenzene	ug/kg	0.75	5	ND	
SC-048	Oct-02	Xylenes	ug/kg	3.7	5	ND	
SC-048	Oct-02	2-Butanone (MEK)	ug/kg	5.4	20	ND	
SC-048	Oct-02	Acenaphthylene	ug/kg	380	330	ND	
SC-048	Oct-02	Anthracene	ug/kg	380	660	ND	
SC-048	Oct-02	Benzo(a)anthracene	ug/kg	380	660	ND	
SC-048	Oct-02	Benzo(g,h,i)perylene	ug/kg	380	330	ND	
SC-048	Oct-02	Butyl benzyl phthalate	ug/kg	380	660	ND	
SC-048	Oct-02	Chrysene	ug/kg	380	660	ND	
SC-048	Oct-02	Di-n-octyl phthalate	ug/kg	380	660	ND	
SC-048	Oct-02	Dibenz(a,h)anthracene	ug/kg	380	660	ND	
SC-048	Oct-02	Fluorene	ug/kg	380	330	ND	
SC-048	Oct-02	Indeno(1,2,3-cd)pyrene	ug/kg	380	330	ND	
SC-048	Oct-02	Methyl Chrysene (6-Methylchrysene)	ug/kg	380	330	ND	
SC-048	Oct-02	1-Methylnaphthalene	ug/kg	380	660	ND	
SC-048	Oct-02	2-Methylnaphthalene	ug/kg	380	330	ND	
SC-048	Oct-02	Naphthalene	ug/kg	380	660	ND	

Table I-8. Summary of Soil Analytical Data for Unsaturated Zone Monitoring – Years 1-10 (continued)

Sample ID	Date	Constituent	Units	Reporting Limit	Monitoring Limit	Result	Flag
SC-048	Oct-02	Phenanthrene	ug/kg	380	660	ND	
SC-048	Oct-02	Pyrene	ug/kg	380	660	ND	
SC-048	Oct-02	Antimony	mg/kg	2.3	6.69	ND	
SC-048	Oct-02	Arsenic	mg/kg		55.5	11	
SC-048	Oct-02	Barium	mg/kg		1028	34	
SC-048	Oct-02	Beryllium	mg/kg	0.46	2.53	ND	
SC-048	Oct-02	Cadmium	mg/kg	0.23	9.11	ND	
SC-048	Oct-02	Chromium	mg/kg		368	13	
SC-048	Oct-02	Cobalt	mg/kg		60.1	11	
SC-048	Oct-02	Lead	mg/kg		504	14	
SC-048	Oct-02	Mercury	mg/kg	0.039	0.9	ND	
SC-048	Oct-02	Nickel	mg/kg		138	24	
SC-048	Oct-02	Selenium	mg/kg	0.2	0.56	ND	
SC-048	Oct-02	Vanadium	mg/kg		446	18	
SC-049	Nov-03	Acetone	ug/kg	4.7	20	ND	
SC-049	Nov-03	Benzene	ug/kg	0.76	5	ND	
SC-049	Nov-03	n-Butylbenzene	ug/kg	0.97	5	ND	
SC-049	Nov-03	sec-Butylbenzene	ug/kg	0.94	5	ND	
SC-049	Nov-03	Ethylbenzene	ug/kg	1.3	5	ND	
SC-049	Nov-03	4-Isopropyltoluene (p-Isopropyltoluene)	ug/kg	0.79	5	ND	
SC-049	Nov-03	n-Propylbenzene	ug/kg	0.99	5	ND	
SC-049	Nov-03	Toluene	ug/kg	1.2	5	ND	
SC-049	Nov-03	1,2,4-Trimethylbenzene	ug/kg	0.67	5	ND	
SC-049	Nov-03	1,3,5-Trimethylbenzene	ug/kg	0.95	5	ND	
SC-049	Nov-03	2-Butanone (MEK)	ug/kg	4.9	20	ND	
SC-049	Nov-03	Xylenes	ug/kg	3.4	5	ND	
SC-049	Nov-03	Acenaphthylene	ug/kg	1.1	330	ND	
SC-049	Nov-03	Anthracene	ug/kg	0.99	660	ND	
SC-049	Nov-03	Benzo(a)anthracene	ug/kg	1.3	660	ND	

Table I-8. Summary of Soil Analytical Data for Unsaturated Zone Monitoring – Years 1-10 (continued)

Sample ID	Date	Constituent	Units	Reporting Limit	Monitoring Limit	Result	Flag
SC-049	Nov-03	Benzo(g,h,i)perylene	ug/kg	2.2	330	ND	
SC-049	Nov-03	Butyl benzyl phthalate	ug/kg	4.7	660	ND	
SC-049	Nov-03	Chrysene	ug/kg	2.1	660	ND	
SC-049	Nov-03	Di-n-octyl phthalate	ug/kg	10	660	ND	
SC-049	Nov-03	Dibenz(a,h)anthracene	ug/kg	2.5	660	ND	
SC-049	Nov-03	Fluorene	ug/kg	1.8	330	ND	
SC-049	Nov-03	Indeno(1,2,3-cd)pyrene	ug/kg	2.4	330	ND	
SC-049	Nov-03	Methyl Chrysene (6-Methylchrysene)	ug/kg	3.8	330	ND	
SC-049	Nov-03	1-Methylnaphthalene	ug/kg	1.2	660	ND	
SC-049	Nov-03	2-Methylnaphthalene	ug/kg	1.7	330	ND	
SC-049	Nov-03	Naphthalene	ug/kg	2	660	ND	
SC-049	Nov-03	Phenanthrene	ug/kg	1.2	660	ND	
SC-049	Nov-03	Pyrene	ug/kg	2.3	660	ND	
SC-049	Nov-03	Antimony	mg/kg	1	6.69	ND	
SC-049	Nov-03	Arsenic	mg/kg		55.5	9.7	
SC-049	Nov-03	Barium	mg/kg		1028	31	
SC-049	Nov-03	Beryllium	mg/kg	0.05	2.53	ND	
SC-049	Nov-03	Cadmium	mg/kg	0.091	9.11	ND	
SC-049	Nov-03	Chromium	mg/kg		368	13	
SC-049	Nov-03	Cobalt	mg/kg		60.1	9.2	
SC-049	Nov-03	Lead	mg/kg		504	11	
SC-049	Nov-03	Mercury	mg/kg		0.9	0.024	
SC-049	Nov-03	Nickel	mg/kg		138	24	
SC-049	Nov-03	Selenium	mg/kg	0.89	0.56	ND	
SC-049	Nov-03	Vanadium	mg/kg		446	16	
SC-050	Nov-03	Acetone	ug/kg	4.8	20	ND	
SC-050	Nov-03	Benzene	ug/kg	0.78	5	ND	
SC-050	Nov-03	n-Butylbenzene	ug/kg	0.99	5	ND	
SC-050	Nov-03	sec-Butylbenzene	ug/kg	0.95	5	ND	

Table I-8. Summary of Soil Analytical Data for Unsaturated Zone Monitoring – Years 1-10 (continued)

Sample ID	Date	Constituent	Units	Reporting Limit	Monitoring Limit	Result	Flag
SC-050	Nov-03	Ethylbenzene	ug/kg	1.3	5	ND	
SC-050	Nov-03	4-Isopropyltoluene (p-Isopropyltoluene)	ug/kg	0.80	5	ND	
SC-050	Nov-03	n-Propylbenzene	ug/kg	1.0	5	ND	
SC-050	Nov-03	Toluene	ug/kg	1.2	5	ND	
SC-050	Nov-03	1,2,4-Trimethylbenzene	ug/kg	0.68	5	ND	
SC-050	Nov-03	1,3,5-Trimethylbenzene	ug/kg	0.96	5	ND	
SC-050	Nov-03	2-Butanone (MEK)	ug/kg	4.9	20	ND	
SC-050	Nov-03	Xylenes	ug/kg	3.4	5	ND	
SC-050	Nov-03	Acenaphthylene	ug/kg	1.1	330	ND	
SC-050	Nov-03	Anthracene	ug/kg	0.99	660	ND	
SC-050	Nov-03	Benzo(a)anthracene	ug/kg	1.3	660	ND	
SC-050	Nov-03	Benzo(g,h,i)perylene	ug/kg	2.2	330	ND	
SC-050	Nov-03	Butyl benzyl phthalate	ug/kg	4.7	660	ND	
SC-050	Nov-03	Chrysene	ug/kg	2.1	660	ND	
SC-050	Nov-03	Di-n-octyl phthalate	ug/kg	10	660	ND	
SC-050	Nov-03	Dibenz(a,h)anthracene	ug/kg	2.5	660	ND	
SC-050	Nov-03	Fluorene	ug/kg	1.8	330	ND	
SC-050	Nov-03	Indeno(1,2,3-cd)pyrene	ug/kg	2.4	330	ND	
SC-050	Nov-03	Methyl Chrysene (6-Methylchrysene)	ug/kg	3.8	330	ND	
SC-050	Nov-03	1-Methylnaphthalene	ug/kg	1.2	660	ND	
SC-050	Nov-03	2-Methylnaphthalene	ug/kg	1.7	330	ND	
SC-050	Nov-03	Naphthalene	ug/kg	2.0	660	ND	
SC-050	Nov-03	Phenanthrene	ug/kg	1.2	660	ND	
SC-050	Nov-03	Pyrene	ug/kg	2.3	660	ND	
SC-050	Nov-03	Antimony	mg/kg	0.98	6.69	ND	
SC-050	Nov-03	Arsenic	mg/kg		55.5	11	
SC-050	Nov-03	Barium	mg/kg		1028	22	
SC-050	Nov-03	Beryllium	mg/kg	0.048	2.53	ND	
SC-050	Nov-03	Cadmium	mg/kg		9.11	0.27	

Table I-8. Summary of Soil Analytical Data for Unsaturated Zone Monitoring – Years 1-10 (continued)

Sample ID	Date	Constituent	Units	Reporting Limit	Monitoring Limit	Result	Flag
SC-050	Nov-03	Chromium	mg/kg		368	17	
SC-050	Nov-03	Cobalt	mg/kg		60.1	8.1	
SC-050	Nov-03	Lead	mg/kg		504	11.0	
SC-050	Nov-03	Mercury	mg/kg		0.9	0.02	
SC-050	Nov-03	Nickel	mg/kg		138	19	
SC-050	Nov-03	Selenium	mg/kg	0.18	0.56	ND	
SC-050	Nov-03	Vanadium	mg/kg		446	14	
SC-051	Nov-03	Acetone	ug/kg	4.6	20	ND	
SC-051	Nov-03	Benzene	ug/kg	0.74	5	ND	
SC-051	Nov-03	n-Butylbenzene	ug/kg	0.95	5	ND	
SC-051	Nov-03	sec-Butylbenzene	ug/kg	0.91	5	ND	
SC-051	Nov-03	Ethylbenzene	ug/kg	1.2	5	ND	
SC-051	Nov-03	4-Isopropyltoluene (p-Isopropyltoluene)	ug/kg	0.77	5	ND	
SC-051	Nov-03	n-Propylbenzene	ug/kg	0.97	5	ND	
SC-051	Nov-03	Toluene	ug/kg	1.1	5	ND	
SC-051	Nov-03	1,2,4-Trimethylbenzene	ug/kg	0.65	5	ND	
SC-051	Nov-03	1,3,5-Trimethylbenzene	ug/kg	0.93	5	ND	
SC-051	Nov-03	2-Butanone (MEK)	ug/kg	4.7	20	ND	
SC-051	Nov-03	Xylenes	ug/kg	3.3	5	ND	
SC-051	Nov-03	Acenaphthylene	ug/kg	1.0	330	ND	
SC-051	Nov-03	Anthracene	ug/kg	0.96	660	ND	
SC-051	Nov-03	Benzo(a)anthracene	ug/kg	1.2	660	ND	
SC-051	Nov-03	Benzo(g,h,i)perylene	ug/kg	2.1	330	ND	
SC-051	Nov-03	Butyl benzyl phthalate	ug/kg	4.6	660	ND	
SC-051	Nov-03	Chrysene	ug/kg	2.0	660	ND	
SC-051	Nov-03	Di-n-octyl phthalate	ug/kg	9.8	660	ND	
SC-051	Nov-03	Dibenz(a,h)anthracene	ug/kg	2.5	660	ND	
SC-051	Nov-03	Fluorene	ug/kg	1.8	330	ND	
SC-051	Nov-03	Indeno(1,2,3-cd)pyrene	ug/kg	2.4	330	ND	

Table I-8. Summary of Soil Analytical Data for Unsaturated Zone Monitoring – Years 1-10 (continued)

Sample ID	Date	Constituent	Units	Reporting Limit	Monitoring Limit	Result	Flag
SC-051	Nov-03	Methyl Chrysene (6-Methylchrysene)	ug/kg	3.7	330	ND	
SC-051	Nov-03	1-Methylnaphthalene	ug/kg	1.7	660	ND	
SC-051	Nov-03	2-Methylnaphthalene	ug/kg	1.7	330	ND	
SC-051	Nov-03	Naphthalene	ug/kg	1.9	660	ND	
SC-051	Nov-03	Phenanthrene	ug/kg	1.1	660	ND	
SC-051	Nov-03	Pyrene	ug/kg	2.2	660	ND	
SC-051	Nov-03	Antimony	mg/kg	0.99	6.69	ND	
SC-051	Nov-03	Arsenic	mg/kg		55.5	14	
SC-051	Nov-03	Barium	mg/kg		1028	27	
SC-051	Nov-03	Beryllium	mg/kg	0.049	2.53	ND	
SC-051	Nov-03	Cadmium	mg/kg	0.088	9.11	ND	
SC-051	Nov-03	Chromium	mg/kg		368	11	
SC-051	Nov-03	Cobalt	mg/kg		60.1	8.5	
SC-051	Nov-03	Lead	mg/kg		504	14	
SC-051	Nov-03	Mercury	mg/kg		0.9	0.024	
SC-051	Nov-03	Nickel	mg/kg		138	17	
SC-051	Nov-03	Selenium	mg/kg	0.16	0.56	ND	
SC-051	Nov-03	Vanadium	mg/kg		446	16	
SC-052	Nov-03	Acetone	ug/kg	4.9	20	ND	
SC-052	Nov-03	Benzene	ug/kg	0.77	5	ND	
SC-052	Nov-03	n-Butylbenzene	ug/kg	1.0	5	ND	
SC-052	Nov-03	sec-Butylbenzene	ug/kg	0.97	5	ND	
SC-052	Nov-03	Ethylbenzene	ug/kg	1.3	5	ND	
SC-052	Nov-03	4-Isopropyltoluene (p-Isopropyltoluene)	ug/kg	0.82	5	ND	
SC-052	Nov-03	n-Propylbenzene	ug/kg	1.0	5	ND	
SC-052	Nov-03	Toluene	ug/kg	1.2	5	ND	
SC-052	Nov-03	1,2,4-Trimethylbenzene	ug/kg	0.70	5	ND	
SC-052	Nov-03	1,3,5-Trimethylbenzene	ug/kg	0.99	5	ND	
SC-052	Nov-03	2-Butanone (MEK)	ug/kg	5.1	20	ND	

Table I-8. Summary of Soil Analytical Data for Unsaturated Zone Monitoring – Years 1-10 (continued)

Sample ID	Date	Constituent	Units	Reporting Limit	Monitoring Limit	Result	Flag
SC-052	Nov-03	Xylenes	ug/kg	3.5	5	ND	
SC-052	Nov-03	Acenaphthylene	ug/kg	1.1	330	ND	
SC-052	Nov-03	Anthracene	ug/kg	1.0	660	ND	
SC-052	Nov-03	Benzo(a)anthracene	ug/kg	1.3	660	ND	
SC-052	Nov-03	Benzo(g,h,i)perylene	ug/kg	2.3	330	ND	
SC-052	Nov-03	Butyl benzyl phthalate	ug/kg	4.9	660	ND	
SC-052	Nov-03	Chrysene	ug/kg	2.2	660	ND	
SC-052	Nov-03	Di-n-octyl phthalate	ug/kg	10.0	660	ND	
SC-052	Nov-03	Dibenz(a,h)anthracene	ug/kg	2.6	660	ND	
SC-052	Nov-03	Fluorene	ug/kg	1.9	330	ND	
SC-052	Nov-03	Indeno(1,2,3-cd)pyrene	ug/kg	2.5	330	ND	
SC-052	Nov-03	Methyl Chrysene (6-Methylchrysene)	ug/kg	3.9	330	ND	
SC-052	Nov-03	1-Methylnaphthalene	ug/kg	1.2	660	ND	
SC-052	Nov-03	2-Methylnaphthalene	ug/kg	1.8	330	ND	
SC-052	Nov-03	Naphthalene	ug/kg	2.0	660	ND	
SC-052	Nov-03	Phenanthrene	ug/kg	1.2	660	ND	
SC-052	Nov-03	Pyrene	ug/kg	2.4	660	ND	
SC-052	Nov-03	Antimony	mg/kg	2.1	6.69	ND	
SC-052	Nov-03	Arsenic	mg/kg		55.5	9.8	
SC-052	Nov-03	Barium	mg/kg		1028	35	
SC-052	Nov-03	Beryllium	mg/kg	0.047	2.53	ND	
SC-052	Nov-03	Cadmium	mg/kg	0.085	9.11	ND	
SC-052	Nov-03	Chromium	mg/kg		368	14	
SC-052	Nov-03	Cobalt	mg/kg		60.1	8.5	
SC-052	Nov-03	Lead	mg/kg		504	11	
SC-052	Nov-03	Mercury	mg/kg		0.9	0.023	
SC-052	Nov-03	Nickel	mg/kg		138	26	
SC-052	Nov-03	Selenium	mg/kg	0.21	0.56	ND	
SC-052	Nov-03	Vanadium	mg/kg		446	18	

Table I-8. Summary of Soil Analytical Data for Unsaturated Zone Monitoring – Years 1-10 (continued)

Sample ID	Date	Constituent	Units	Reporting Limit	Monitoring Limit	Result	Flag
SC-053	Nov-03	Acetone	ug/kg	4.9	20	ND	
SC-053	Nov-03	Benzene	ug/kg	0.78	5	ND	
SC-053	Nov-03	n-Butylbenzene	ug/kg	1.0	5	ND	
SC-053	Nov-03	sec-Butylbenzene	ug/kg	0.96	5	ND	
SC-053	Nov-03	Ethylbenzene	ug/kg	1.3	5	ND	
SC-053	Nov-03	4-Isopropyltoluene (p-Isopropyltoluene)	ug/kg	0.81	5	ND	
SC-053	Nov-03	n-Propylbenzene	ug/kg	1.0	5	ND	
SC-053	Nov-03	Toluene	ug/kg	1.2	5	ND	
SC-053	Nov-03	1,2,4-Trimethylbenzene	ug/kg	0.69	5	ND	
SC-053	Nov-03	1,3,5-Trimethylbenzene	ug/kg	0.97	5	ND	
SC-053	Nov-03	2-Butanone (MEK)	ug/kg	5.0	20	ND	
SC-053	Nov-03	Xylenes	ug/kg	3.4	5	ND	
SC-053	Nov-03	Acenaphthylene	ug/kg	1.1	330	ND	
SC-053	Nov-03	Anthracene	ug/kg	1.0	660	ND	
SC-053	Nov-03	Benzo(a)anthracene	ug/kg	1.3	660	ND	
SC-053	Nov-03	Benzo(g,h,i)perylene	ug/kg	2.3	330	ND	
SC-053	Nov-03	Butyl benzyl phthalate	ug/kg	4.9	660	ND	
SC-053	Nov-03	Chrysene	ug/kg	2.2	660	ND	
SC-053	Nov-03	Di-n-octyl phthalate	ug/kg	10.0	660	ND	
SC-053	Nov-03	Dibenz(a,h)anthracene	ug/kg	2.6	660	ND	
SC-053	Nov-03	Fluorene	ug/kg	1.9	330	ND	
SC-053	Nov-03	Indeno(1,2,3-cd)pyrene	ug/kg	2.5	330	ND	
SC-053	Nov-03	Methyl Chrysene (6-Methylchrysene)	ug/kg	3.9	330	ND	
SC-053	Nov-03	1-Methylnaphthalene	ug/kg	1.2	660	ND	
SC-053	Nov-03	2-Methylnaphthalene	ug/kg	1.8	330	ND	
SC-053	Nov-03	Naphthalene	ug/kg	2.0	660	ND	
SC-053	Nov-03	Phenanthrene	ug/kg	1.2	660	ND	
SC-053	Nov-03	Pyrene	ug/kg	2.4	660	ND	
SC-053	Nov-03	Antimony	mg/kg	0.96	6.69	ND	

Table I-8. Summary of Soil Analytical Data for Unsaturated Zone Monitoring – Years 1-10 (continued)

Sample ID	Date	Constituent	Units	Reporting Limit	Monitoring Limit	Result	Flag
SC-053	Nov-03	Arsenic	mg/kg		55.5	12	
SC-053	Nov-03	Barium	mg/kg		1028	94	
SC-053	Nov-03	Beryllium	mg/kg		2.53	0.79	
SC-053	Nov-03	Cadmium	mg/kg	0.085	9.11	ND	
SC-053	Nov-03	Chromium	mg/kg		368	23	
SC-053	Nov-03	Cobalt	mg/kg		60.1	11	
SC-053	Nov-03	Lead	mg/kg		504	13	
SC-053	Nov-03	Mercury	mg/kg		0.9	0.023	
SC-053	Nov-03	Nickel	mg/kg		138	31	
SC-053	Nov-03	Selenium	mg/kg	0.17	0.56	ND	
SC-053	Nov-03	Vanadium	mg/kg		446	26	
SC-054	Nov-03	Acetone	ug/kg	4.7	20	ND	
SC-054	Nov-03	Benzene	ug/kg	0.76	5	ND	
SC-054	Nov-03	n-Butylbenzene	ug/kg	0.96	5	ND	
SC-054	Nov-03	sec-Butylbenzene	ug/kg	0.93	5	ND	
SC-054	Nov-03	Ethylbenzene	ug/kg	1.3	5	ND	
SC-054	Nov-03	4-Isopropyltoluene (p-Isopropyltoluene)	ug/kg	0.78	5	ND	
SC-054	Nov-03	n-Propylbenzene	ug/kg	0.99	5	ND	
SC-054	Nov-03	Toluene	ug/kg	1.1	5	ND	
SC-054	Nov-03	1,2,4-Trimethylbenzene	ug/kg	0.67	5	ND	
SC-054	Nov-03	1,3,5-Trimethylbenzene	ug/kg	0.94	5	ND	
SC-054	Nov-03	2-Butanone (MEK)	ug/kg	4.8	20	ND	
SC-054	Nov-03	Xylenes	ug/kg	3.3	5	ND	
SC-054	Nov-03	Acenaphthylene	ug/kg	1.0	330	ND	
SC-054	Nov-03	Anthracene	ug/kg	1.0	660	ND	
SC-054	Nov-03	Benzo(a)anthracene	ug/kg	1.2	660	ND	
SC-054	Nov-03	Benzo(g,h,i)perylene	ug/kg	2.1	330	ND	
SC-054	Nov-03	Butyl benzyl phthalate	ug/kg	4.6	660	ND	
SC-054	Nov-03	Chrysene	ug/kg	2.0	660	ND	

Table I-8. Summary of Soil Analytical Data for Unsaturated Zone Monitoring – Years 1-10 (continued)

Sample ID	Date	Constituent	Units	Reporting Limit	Monitoring Limit	Result	Flag
SC-054	Nov-03	Di-n-octyl phthalate	ug/kg	9.7	660	ND	
SC-054	Nov-03	Dibenz(a,h)anthracene	ug/kg	2.5	660	ND	
SC-054	Nov-03	Fluorene	ug/kg	1.8	330	ND	
SC-054	Nov-03	Indeno(1,2,3-cd)pyrene	ug/kg	2.3	330	ND	
SC-054	Nov-03	Methyl Chrysene (6-Methylchrysene)	ug/kg	3.7	330	ND	
SC-054	Nov-03	1-Methylnaphthalene	ug/kg	1.1	660	ND	
SC-054	Nov-03	2-Methylnaphthalene	ug/kg	1.7	330	ND	
SC-054	Nov-03	Naphthalene	ug/kg	1.9	660	ND	
SC-054	Nov-03	Phenanthrene	ug/kg	1.1	660	ND	
SC-054	Nov-03	Pyrene	ug/kg	2.2	660	ND	
SC-054	Nov-03	Antimony	mg/kg	0.94	6.69	ND	
SC-054	Nov-03	Arsenic	mg/kg		55.5	9.9	
SC-054	Nov-03	Barium	mg/kg		1028	25	
SC-054	Nov-03	Beryllium	mg/kg	0.046	2.53	ND	
SC-054	Nov-03	Cadmium	mg/kg	0.084	9.11	ND	
SC-054	Nov-03	Chromium	mg/kg		368	12	
SC-054	Nov-03	Cobalt	mg/kg		60.1	11	
SC-054	Nov-03	Lead	mg/kg		504	13	
SC-054	Nov-03	Mercury	mg/kg		0.9	0.023	
SC-054	Nov-03	Nickel	mg/kg		138	25	
SC-054	Nov-03	Selenium	mg/kg	0.17	0.56	ND	
SC-054	Nov-03	Vanadium	mg/kg		446	14	
SC-055	Nov-03	Acetone	ug/kg	4.8	20	ND	
SC-055	Nov-03	Benzene	ug/kg	0.77	5	ND	
SC-055	Nov-03	n-Butylbenzene	ug/kg	0.98	5	ND	
SC-055	Nov-03	sec-Butylbenzene	ug/kg	0.95	5	ND	
SC-055	Nov-03	Ethylbenzene	ug/kg	1.3	5	ND	
SC-055	Nov-03	4-Isopropyltoluene (p-Isopropyltoluene)	ug/kg	0.8	5	ND	
SC-055	Nov-03	n-Propylbenzene	ug/kg	1.0	5	ND	

Table I-8. Summary of Soil Analytical Data for Unsaturated Zone Monitoring – Years 1-10 (continued)

Sample ID	Date	Constituent	Units	Reporting Limit	Monitoring Limit	Result	Flag
SC-055	Nov-03	Toluene	ug/kg	1.2	5	ND	
SC-055	Nov-03	1,2,4-Trimethylbenzene	ug/kg	0.68	5	ND	
SC-055	Nov-03	1,3,5-Trimethylbenzene	ug/kg	0.96	5	ND	
SC-055	Nov-03	2-Butanone (MEK)	ug/kg	4.9	20	ND	
SC-055	Nov-03	Xylenes	ug/kg	3.4	5	ND	
SC-055	Nov-03	Acenaphthylene	ug/kg	1.0	330	ND	
SC-055	Nov-03	Anthracene	ug/kg	1.0	660	ND	
SC-055	Nov-03	Benzo(a)anthracene	ug/kg	1.3	660	ND	
SC-055	Nov-03	Benzo(g,h,i)perylene	ug/kg	2.2	330	ND	
SC-055	Nov-03	Butyl benzyl phthalate	ug/kg	4.7	660	ND	
SC-055	Nov-03	Chrysene	ug/kg	2.1	660	ND	
SC-055	Nov-03	Di-n-octyl phthalate	ug/kg	10.0	660	ND	
SC-055	Nov-03	Dibenz(a,h)anthracene	ug/kg	2.5	660	ND	
SC-055	Nov-03	Fluorene	ug/kg	1.8	330	ND	
SC-055	Nov-03	Indeno(1,2,3-cd)pyrene	ug/kg	2.4	330	ND	
SC-055	Nov-03	Methyl Chrysene (6-Methylchrysene)	ug/kg	3.8	330	ND	
SC-055	Nov-03	1-Methylnaphthalene	ug/kg	1.1	660	ND	
SC-055	Nov-03	2-Methylnaphthalene	ug/kg	1.7	330	ND	
SC-055	Nov-03	Naphthalene	ug/kg	2.0	660	ND	
SC-055	Nov-03	Phenanthrene	ug/kg	1.1	660	ND	
SC-055	Nov-03	Pyrene	ug/kg	2.3	660	ND	
SC-055	Nov-03	Antimony	mg/kg	0.99	6.69	ND	
SC-055	Nov-03	Arsenic	mg/kg		55.5	8.8	
SC-055	Nov-03	Barium	mg/kg		1028	35	
SC-055	Nov-03	Beryllium	mg/kg	0.048	2.53	ND	
SC-055	Nov-03	Cadmium	mg/kg	0.088	9.11	ND	
SC-055	Nov-03	Chromium	mg/kg		368	16	
SC-055	Nov-03	Cobalt	mg/kg		60.1	12	
SC-055	Nov-03	Lead	mg/kg		504	14	

Table I-8. Summary of Soil Analytical Data for Unsaturated Zone Monitoring – Years 1-10 (continued)

Sample ID	Date	Constituent	Units	Reporting Limit	Monitoring Limit	Result	Flag
SC-055	Nov-03	Mercury	mg/kg		0.9	0.022	
SC-055	Nov-03	Nickel	mg/kg		138	29	
SC-055	Nov-03	Selenium	mg/kg	0.91	0.56	ND	
SC-055	Nov-03	Vanadium	mg/kg		446	22	
SC-056	Nov-03	Acetone	ug/kg	4.7	20	ND	
SC-056	Nov-03	Benzene	ug/kg	0.76	5	ND	
SC-056	Nov-03	n-Butylbenzene	ug/kg	0.97	5	ND	
SC-056	Nov-03	sec-Butylbenzene	ug/kg	0.94	5	ND	
SC-056	Nov-03	Ethylbenzene	ug/kg	1.3	5	ND	
SC-056	Nov-03	4-Isopropyltoluene (p-Isopropyltoluene)	ug/kg	0.79	5	ND	
SC-056	Nov-03	n-Propylbenzene	ug/kg	0.99	5	ND	
SC-056	Nov-03	Toluene	ug/kg	1.2	5	ND	
SC-056	Nov-03	1,2,4-Trimethylbenzene	ug/kg	0.67	5	ND	
SC-056	Nov-03	1,3,5-Trimethylbenzene	ug/kg	0.95	5	ND	
SC-056	Nov-03	2-Butanone (MEK)	ug/kg	4.8	20	ND	
SC-056	Nov-03	Xylenes	ug/kg	3.3	5	ND	
SC-056	Nov-03	Acenaphthylene	ug/kg	1.0	330	ND	
SC-056	Nov-03	Anthracene	ug/kg	0.98	660	ND	
SC-056	Nov-03	Benzo(a)anthracene	ug/kg	1.2	660	ND	
SC-056	Nov-03	Benzo(g,h,i)perylene	ug/kg	2.2	330	ND	
SC-056	Nov-03	Butyl benzyl phthalate	ug/kg	4.6	660	ND	
SC-056	Nov-03	Chrysene	ug/kg	2.0	660	ND	
SC-056	Nov-03	Di-n-octyl phthalate	ug/kg	9.9	660	ND	
SC-056	Nov-03	Dibenz(a,h)anthracene	ug/kg	2.5	660	ND	
SC-056	Nov-03	Fluorene	ug/kg	1.8	330	ND	
SC-056	Nov-03	Indeno(1,2,3-cd)pyrene	ug/kg	2.4	330	ND	
SC-056	Nov-03	Methyl Chrysene (6-Methylchrysene)	ug/kg	3.7	330	ND	
SC-056	Nov-03	1-Methylnaphthalene	ug/kg	1.1	660	ND	
SC-056	Nov-03	2-Methylnaphthalene	ug/kg	1.7	330	ND	

Table I-8. Summary of Soil Analytical Data for Unsaturated Zone Monitoring – Years 1-10 (continued)

Sample ID	Date	Constituent	Units	Reporting Limit	Monitoring Limit	Result	Flag
SC-056	Nov-03	Naphtalene	ug/kg	1.9	660	ND	
SC-056	Nov-03	Phenanthrene	ug/kg	1.1	660	ND	
SC-056	Nov-03	Pyrene	ug/kg	2.3	660	ND	
SC-056	Nov-03	Antimony	mg/kg	0.97	6.69	ND	
SC-056	Nov-03	Arsenic	mg/kg		55.5	11	
SC-056	Nov-03	Barium	mg/kg		1028	18	
SC-056	Nov-03	Beryllium	mg/kg	0.047	2.53	ND	
SC-056	Nov-03	Cadmium	mg/kg	0.086	9.11	ND	
SC-056	Nov-03	Chromium	mg/kg		368	8.7	
SC-056	Nov-03	Cobalt	mg/kg		60.1	6.30	
SC-056	Nov-03	Lead	mg/kg		504	14	
SC-056	Nov-03	Mercury	mg/kg		0.9	0.026	
SC-056	Nov-03	Nickel	mg/kg		138	18	
SC-056	Nov-03	Selenium	mg/kg	0.18	0.56	ND	
SC-056	Nov-03	Vanadium	mg/kg		446	12	
SC-057	Dec-04	Acetone	ug/kg		20	14	
SC-057	Dec-04	Benzene	ug/kg	1.3	5	ND	
SC-057	Dec-04	n-Butylbenzene	ug/kg	1.5	5	ND	
SC-057	Dec-04	sec-Butylbenzene	ug/kg	1.4	5	ND	
SC-057	Dec-04	Ethylbenzene	ug/kg	1.3	5	ND	
SC-057	Dec-04	4-Isopropyltoluene (p-Isopropyltoluene)	ug/kg	1.5	5	ND	
SC-057	Dec-04	n-Propylbenzene	ug/kg	1.5	5	ND	
SC-057	Dec-04	Toluene	ug/kg	1.3	5	ND	
SC-057	Dec-04	1,2,4-Trimethylbenzene	ug/kg	1.6	5	ND	
SC-057	Dec-04	1,3,5-Trimethylbenzene	ug/kg	1.5	5	ND	
SC-057	Dec-04	2-Butanone (MEK)	ug/kg	4.4	20	ND	
SC-057	Dec-04	Xylenes	ug/kg	3.9	5	ND	
SC-057	Dec-04	Acenaphthylene	ug/kg	1.0	330	ND	
SC-057	Dec-04	Anthracene	ug/kg	0.96	660	ND	

Table I-8. Summary of Soil Analytical Data for Unsaturated Zone Monitoring – Years 1-10 (continued)

Sample ID	Date	Constituent	Units	Reporting Limit	Monitoring Limit	Result	Flag
SC-057	Dec-04	Benzo(a)anthracene	ug/kg	1.2	660	ND	
SC-057	Dec-04	Benzo(g,h,i)perylene	ug/kg	2.1	330	ND	
SC-057	Dec-04	Butyl benzyl phthalate	ug/kg	4.6	660	ND	
SC-057	Dec-04	Chrysene	ug/kg	2.0	660	ND	
SC-057	Dec-04	Di-n-octyl phthalate	ug/kg	9.8	660	ND	
SC-057	Dec-04	Dibenz(a,h)anthracene	ug/kg	2.5	660	ND	
SC-057	Dec-04	Fluorene	ug/kg	1.8	330	ND	
SC-057	Dec-04	Indeno(1,2,3-cd)pyrene	ug/kg	2.4	330	ND	
SC-057	Dec-04	Methyl Chrysene (6-Methylchrysene)	ug/kg	11.0	330	ND	
SC-057	Dec-04	1-Methylnaphthalene	ug/kg	1.1	660	ND	
SC-057	Dec-04	2-Methylnaphthalene	ug/kg	1.7	330	ND	
SC-057	Dec-04	Naphthalene	ug/kg	1.9	660	ND	
SC-057	Dec-04	Phenanthrene	ug/kg	1.1	660	ND	
SC-057	Dec-04	Pyrene	ug/kg	2.2	660	ND	
SC-057	Dec-04	Antimony	mg/kg	0.35	6.69	ND	
SC-057	Dec-04	Arsenic	mg/kg		55.5	11	
SC-057	Dec-04	Barium	mg/kg		1028	21.0	
SC-057	Dec-04	Beryllium	mg/kg		2.53	0.39	
SC-057	Dec-04	Cadmium	mg/kg		9.11	0.15	
SC-057	Dec-04	Chromium	mg/kg		368	9.2	
SC-057	Dec-04	Cobalt	mg/kg		60.1	7.8	
SC-057	Dec-04	Lead	mg/kg		504	12	
SC-057	Dec-04	Mercury	mg/kg		0.9	0.031	
SC-057	Dec-04	Nickel	mg/kg		138	19	
SC-057	Dec-04	Selenium	mg/kg	0.18	0.56	ND	
SC-057	Dec-04	Vanadium	mg/kg		446	11	
SC-058	Dec-04	Acetone	ug/kg	3.8	20	ND	
SC-058	Dec-04	Benzene	ug/kg	1.3	5	ND	
SC-058	Dec-04	n-Butylbenzene	ug/kg	1.6	5	ND	

Table I-8. Summary of Soil Analytical Data for Unsaturated Zone Monitoring – Years 1-10 (continued)

Sample ID	Date	Constituent	Units	Reporting Limit	Monitoring Limit	Result	Flag
SC-058	Dec-04	sec-Butylbenzene	ug/kg	1.4	5	ND	
SC-058	Dec-04	Ethylbenzene	ug/kg	1.3	5	ND	
SC-058	Dec-04	4-Isopropyltoluene (p-Isopropyltoluene)	ug/kg	1.6	5	ND	
SC-058	Dec-04	n-Propylbenzene	ug/kg	1.6	5	ND	
SC-058	Dec-04	Toluene	ug/kg	1.3	5	ND	
SC-058	Dec-04	1,2,4-Trimethylbenzene	ug/kg	1.7	5	ND	
SC-058	Dec-04	1,3,5-Trimethylbenzene	ug/kg	1.6	5	ND	
SC-058	Dec-04	2-Butanone (MEK)	ug/kg	4.7	20	ND	
SC-058	Dec-04	Xylenes	ug/kg	4.1	5	ND	
SC-058	Dec-04	Acenaphthylene	ug/kg	1.1	330	ND	
SC-058	Dec-04	Anthracene	ug/kg	1.0	660	ND	
SC-058	Dec-04	Benzo(a)anthracene	ug/kg	1.3	660	ND	
SC-058	Dec-04	Benzo(g,h,i)perylene	ug/kg	2.2	330	ND	
SC-058	Dec-04	Butyl benzyl phthalate	ug/kg	4.8	660	ND	
SC-058	Dec-04	Chrysene	ug/kg	2.1	660	ND	
SC-058	Dec-04	Di-n-octyl phthalate	ug/kg	10.0	660	ND	
SC-058	Dec-04	Dibenz(a,h)anthracene	ug/kg	2.6	660	ND	
SC-058	Dec-04	Fluorene	ug/kg	1.9	330	ND	
SC-058	Dec-04	Indeno(1,2,3-cd)pyrene	ug/kg	2.5	330	ND	
SC-058	Dec-04	Methyl Chrysene (6-Methylchrysene)	ug/kg	12	330	ND	
SC-058	Dec-04	1-Methylnaphthalene	ug/kg	1.2	660	ND	
SC-058	Dec-04	2-Methylnaphthalene	ug/kg	1.8	330	ND	
SC-058	Dec-04	Naphthalene	ug/kg	2.0	660	ND	
SC-058	Dec-04	Phenanthrene	ug/kg	1.2	660	ND	
SC-058	Dec-04	Pyrene	ug/kg	2.3	660	ND	
SC-058	Dec-04	Antimony	mg/kg	0.38	6.69	ND	
SC-058	Dec-04	Arsenic	mg/kg		55.5	9.9	
SC-058	Dec-04	Barium	mg/kg		1028	36	
SC-058	Dec-04	Beryllium	mg/kg		2.53	0.7	

Table I-8. Summary of Soil Analytical Data for Unsaturated Zone Monitoring – Years 1-10 (continued)

Sample ID	Date	Constituent	Units	Reporting Limit	Monitoring Limit	Result	Flag
SC-058	Dec-04	Cadmium	mg/kg	0.028	9.11	ND	
SC-058	Dec-04	Chromium	mg/kg		368	15	
SC-058	Dec-04	Cobalt	mg/kg		60.1	11	
SC-058	Dec-04	Lead	mg/kg		504	12	
SC-058	Dec-04	Mercury	mg/kg		0.9	0.047	
SC-058	Dec-04	Nickel	mg/kg		138	27	
SC-058	Dec-04	Selenium	mg/kg	0.18	0.56	ND	
SC-058	Dec-04	Vanadium	mg/kg		446	19	
SC-059	Dec-04	Acetone	ug/kg	3.7	20	ND	
SC-059	Dec-04	Benzene	ug/kg	1.3	5	ND	
SC-059	Dec-04	n-Butylbenzene	ug/kg	1.5	5	ND	
SC-059	Dec-04	sec-Butylbenzene	ug/kg	1.4	5	ND	
SC-059	Dec-04	Ethylbenzene	ug/kg	1.3	5	ND	
SC-059	Dec-04	4-Isopropyltoluene (p-Isopropyltoluene)	ug/kg	1.5	5	ND	
SC-059	Dec-04	n-Propylbenzene	ug/kg	1.5	5	ND	
SC-059	Dec-04	Toluene	ug/kg	1.3	5	ND	
SC-059	Dec-04	1,2,4-Trimethylbenzene	ug/kg	1.6	5	ND	
SC-059	Dec-04	1,3,5-Trimethylbenzene	ug/kg	1.5	5	ND	
SC-059	Dec-04	2-Butanone (MEK)	ug/kg	4.5	20	ND	
SC-059	Dec-04	Xylenes	ug/kg	3.9	5	ND	
SC-059	Dec-04	Acenaphthylene	ug/kg	1.1	330	ND	
SC-059	Dec-04	Anthracene	ug/kg	1.0	660	ND	
SC-059	Dec-04	Benzo(a)anthracene	ug/kg	1.3	660	ND	
SC-059	Dec-04	Benzo(g,h,i)perylene	ug/kg	2.2	330	ND	
SC-059	Dec-04	Butyl benzyl phthalate	ug/kg	4.7	660	ND	
SC-059	Dec-04	Chrysene	ug/kg	2.1	660	ND	
SC-059	Dec-04	Di-n-octyl phthalate	ug/kg	10.0	660	ND	
SC-059	Dec-04	Dibenz(a,h)anthracene	ug/kg	2.5	660	ND	
SC-059	Dec-04	Fluorene	ug/kg	1.9	330	ND	

Table I-8. Summary of Soil Analytical Data for Unsaturated Zone Monitoring – Years 1-10 (continued)

Sample ID	Date	Constituent	Units	Reporting Limit	Monitoring Limit	Result	Flag
SC-059	Dec-04	Indeno(1,2,3-cd)pyrene	ug/kg	2.4	330	ND	
SC-059	Dec-04	Methyl Chrysene (6-Methylchrysene)	ug/kg	12.0	330	ND	
SC-059	Dec-04	1-Methylnaphthalene	ug/kg	1.2	660	ND	
SC-059	Dec-04	2-Methylnaphthalene	ug/kg	1.7	330	ND	
SC-059	Dec-04	Naphthalene	ug/kg	2.0	660	ND	
SC-059	Dec-04	Phenanthrene	ug/kg	1.2	660	ND	
SC-059	Dec-04	Pyrene	ug/kg	2.3	660	ND	
SC-059	Dec-04	Antimony	mg/kg	0.37	6.69	ND	
SC-059	Dec-04	Arsenic	mg/kg		55.5	6.3	
SC-059	Dec-04	Barium	mg/kg		1028	54	
SC-059	Dec-04	Beryllium	mg/kg		2.53	0.76	
SC-059	Dec-04	Cadmium	mg/kg	0.027	9.11	ND	
SC-059	Dec-04	Chromium	mg/kg		368	17	
SC-059	Dec-04	Cobalt	mg/kg		60.1	9.1	
SC-059	Dec-04	Lead	mg/kg		504	9.7	
SC-059	Dec-04	Mercury	mg/kg		0.9	0.022	
SC-059	Dec-04	Nickel	mg/kg		138	22	
SC-059	Dec-04	Selenium	mg/kg	0.19	0.56	ND	
SC-059	Dec-04	Vanadium	mg/kg		446	23	
SC-060	Dec-04	Acetone	ug/kg	3.5	20	ND	
SC-060	Dec-04	Benzene	ug/kg	1.2	5	ND	
SC-060	Dec-04	n-Butylbenzene	ug/kg	1.4	5	ND	
SC-060	Dec-04	sec-Butylbenzene	ug/kg	1.3	5	ND	
SC-060	Dec-04	Ethylbenzene	ug/kg	1.2	5	ND	
SC-060	Dec-04	4-Isopropyltoluene (p-Isopropyltoluene)	ug/kg	1.4	5	ND	
SC-060	Dec-04	n-Propylbenzene	ug/kg	1.4	5	ND	
SC-060	Dec-04	Toluene	ug/kg	1.2	5	ND	
SC-060	Dec-04	1,2,4-Trimethylbenzene	ug/kg	1.5	5	ND	
SC-060	Dec-04	1,3,5-Trimethylbenzene	ug/kg	1.4	5	ND	

Table I-8. Summary of Soil Analytical Data for Unsaturated Zone Monitoring – Years 1-10 (continued)

Sample ID	Date	Constituent	Units	Reporting Limit	Monitoring Limit	Result	Flag
SC-060	Dec-04	2-Butanone (MEK)	ug/kg	4.3	20	ND	
SC-060	Dec-04	Xylenes	ug/kg	3.7	5	ND	
SC-060	Dec-04	Acenaphthylene	ug/kg	0.98	330	ND	
SC-060	Dec-04	Anthracene	ug/kg	0.92	660	ND	
SC-060	Dec-04	Benzo(a)anthracene	ug/kg	1.2	660	ND	
SC-060	Dec-04	Benzo(g,h,i)perylene	ug/kg	2.0	330	ND	
SC-060	Dec-04	Butyl benzyl phthalate	ug/kg	4.4	660	ND	
SC-060	Dec-04	Chrysene	ug/kg	1.9	660	ND	
SC-060	Dec-04	Di-n-octyl phthalate	ug/kg	9.3	660	ND	
SC-060	Dec-04	Dibenz(a,h)anthracene	ug/kg	2.4	660	ND	
SC-060	Dec-04	Fluorene	ug/kg	1.7	330	ND	
SC-060	Dec-04	Indeno(1,2,3-cd)pyrene	ug/kg	2.3	330	ND	
SC-060	Dec-04	Methyl Chrysene (6-Methylchrysene)	ug/kg	11.0	330	ND	
SC-060	Dec-04	1-Methylnaphthalene	ug/kg	1.1	660	ND	
SC-060	Dec-04	2-Methylnaphthalene	ug/kg	1.6	330	ND	
SC-060	Dec-04	Naphthalene	ug/kg	1.8	660	ND	
SC-060	Dec-04	Phenanthrene	ug/kg	1.1	660	ND	
SC-060	Dec-04	Pyrene	ug/kg	2.1	660	ND	
SC-060	Dec-04	Antimony	mg/kg	0.35	6.69	ND	
SC-060	Dec-04	Arsenic	mg/kg		55.5	12	
SC-060	Dec-04	Barium	mg/kg		1028	20	
SC-060	Dec-04	Beryllium	mg/kg		2.53	0.35	
SC-060	Dec-04	Cadmium	mg/kg		9.11	0.21	
SC-060	Dec-04	Chromium	mg/kg		368	8.3	
SC-060	Dec-04	Cobalt	mg/kg		60.1	7.7	
SC-060	Dec-04	Lead	mg/kg		504	11	
SC-060	Dec-04	Mercury	mg/kg		0.9	0.041	
SC-060	Dec-04	Nickel	mg/kg		138	18	
SC-060	Dec-04	Selenium	mg/kg	0.15	0.56	ND	

Table I-8. Summary of Soil Analytical Data for Unsaturated Zone Monitoring – Years 1-10 (continued)

Sample ID	Date	Constituent	Units	Reporting Limit	Monitoring Limit	Result	Flag
SC-060	Dec-04	Vanadium	mg/kg		446	10	
SC-061	Dec-04	Acetone	ug/kg	3.8	20	ND	
SC-061	Dec-04	Benzene	ug/kg	1.3	5	ND	
SC-061	Dec-04	n-Butylbenzene	ug/kg	1.5	5	ND	
SC-061	Dec-04	sec-Butylbenzene	ug/kg	1.4	5	ND	
SC-061	Dec-04	Ethylbenzene	ug/kg	1.3	5	ND	
SC-061	Dec-04	4-Isopropyltoluene (p-Isopropyltoluene)	ug/kg	1.5	5	ND	
SC-061	Dec-04	n-Propylbenzene	ug/kg	1.5	5	ND	
SC-061	Dec-04	Toluene	ug/kg	1.3	5	ND	
SC-061	Dec-04	1,2,4-Trimethylbenzene	ug/kg	1.6	5	ND	
SC-061	Dec-04	1,3,5-Trimethylbenzene	ug/kg	1.5	5	ND	
SC-061	Dec-04	2-Butanone (MEK)	ug/kg	4.6	20	ND	
SC-061	Dec-04	Xylenes	ug/kg	4.0	5	ND	
SC-061	Dec-04	Acenaphthylene	ug/kg	1	330	ND	
SC-061	Dec-04	Anthracene	ug/kg	0.99	660	ND	
SC-061	Dec-04	Benzo(a)anthracene	ug/kg	1.3	660	ND	
SC-061	Dec-04	Benzo(g,h,i)perylene	ug/kg	2.2	330	ND	
SC-061	Dec-04	Butyl benzyl phthalate	ug/kg	4.7	660	ND	
SC-061	Dec-04	Chrysene	ug/kg	2.1	660	ND	
SC-061	Dec-04	Di-n-octyl phthalate	ug/kg	10	660	ND	
SC-061	Dec-04	Dibenz(a,h)anthracene	ug/kg	2.5	660	ND	
SC-061	Dec-04	Fluorene	ug/kg	1.8	330	ND	
SC-061	Dec-04	Indeno(1,2,3-cd)pyrene	ug/kg	2.4	330	ND	
SC-061	Dec-04	Methyl Chrysene (6-Methylchrysene)	ug/kg	11	330	ND	
SC-061	Dec-04	1-Methylnaphthalene	ug/kg	1.1	660	ND	
SC-061	Dec-04	2-Methylnaphthalene	ug/kg		330	53	
SC-061	Dec-04	Naphthalene	ug/kg	2	660	ND	
SC-061	Dec-04	Phenanthrene	ug/kg	1.1	660	ND	
SC-061	Dec-04	Pyrene	ug/kg	2.3	660	ND	

Table I-8. Summary of Soil Analytical Data for Unsaturated Zone Monitoring – Years 1-10 (continued)

Sample ID	Date	Constituent	Units	Reporting Limit	Monitoring Limit	Result	Flag
SC-061	Dec-04	Antimony	mg/kg	0.38	6.69	ND	
SC-061	Dec-04	Arsenic	mg/kg		55.5	11	
SC-061	Dec-04	Barium	mg/kg		1028	44.0	
SC-061	Dec-04	Beryllium	mg/kg		2.53	0.73	
SC-061	Dec-04	Cadmium	mg/kg	0.028	9.11	ND	
SC-061	Dec-04	Chromium	mg/kg		368	17	
SC-061	Dec-04	Cobalt	mg/kg		60.1	19	
SC-061	Dec-04	Lead	mg/kg		504	16	
SC-061	Dec-04	Mercury	mg/kg		0.9	0.039	
SC-061	Dec-04	Nickel	mg/kg		138	36	
SC-061	Dec-04	Selenium	mg/kg	0.16	0.56	ND	
SC-061	Dec-04	Vanadium	mg/kg		446	20	
SC-062	Dec-04	Acetone	ug/kg	3.8	20	ND	
SC-062	Dec-04	Benzene	ug/kg	1.3	5	ND	
SC-062	Dec-04	n-Butylbenzene	ug/kg	1.6	5	ND	
SC-062	Dec-04	sec-Butylbenzene	ug/kg	1.4	5	ND	
SC-062	Dec-04	Ethylbenzene	ug/kg	1.3	5	ND	
SC-062	Dec-04	4-Isopropyltoluene (p-Isopropyltoluene)	ug/kg	1.6	5	ND	
SC-062	Dec-04	n-Propylbenzene	ug/kg	1.6	5	ND	
SC-062	Dec-04	Toluene	ug/kg	1.3	5	ND	
SC-062	Dec-04	1,2,4-Trimethylbenzene	ug/kg	1.7	5	ND	
SC-062	Dec-04	1,3,5-Trimethylbenzene	ug/kg	1.6	5	ND	
SC-062	Dec-04	2-Butanone (MEK)	ug/kg	4.7	20	ND	
SC-062	Dec-04	Xylenes	ug/kg	4.1	5	ND	
SC-062	Dec-04	Acenaphthylene	ug/kg	1.1	330	ND	
SC-062	Dec-04	Anthracene	ug/kg	1.0	660	ND	
SC-062	Dec-04	Benzo(a)anthracene	ug/kg	1.3	660	ND	
SC-062	Dec-04	Benzo(g,h,i)perylene	ug/kg	2.2	330	ND	
SC-062	Dec-04	Butyl benzyl phthalate	ug/kg	4.8	660	ND	

Table I-8. Summary of Soil Analytical Data for Unsaturated Zone Monitoring – Years 1-10 (continued)

Sample ID	Date	Constituent	Units	Reporting Limit	Monitoring Limit	Result	Flag
SC-062	Dec-04	Chrysene	ug/kg	2.1	660	ND	
SC-062	Dec-04	Di-n-octyl phthalate	ug/kg	10.0	660	ND	
SC-062	Dec-04	Dibenz(a,h)anthracene	ug/kg	2.6	660	ND	
SC-062	Dec-04	Fluorene	ug/kg	1.9	330	ND	
SC-062	Dec-04	Indeno(1,2,3-cd)pyrene	ug/kg	2.5	330	ND	
SC-062	Dec-04	Methyl Chrysene (6-Methylchrysene)	ug/kg	12.0	330	ND	
SC-062	Dec-04	1-Methylnaphthalene	ug/kg	1.2	660	ND	
SC-062	Dec-04	2-Methylnaphthalene	ug/kg	1.8	330	ND	
SC-062	Dec-04	Naphthalene	ug/kg	2.0	660	ND	
SC-062	Dec-04	Phenanthrene	ug/kg	1.2	660	ND	
SC-062	Dec-04	Pyrene	ug/kg	2.3	660	ND	
SC-062	Dec-04	Antimony	mg/kg	0.39	6.69	ND	
SC-062	Dec-04	Arsenic	mg/kg		55.5	12	
SC-062	Dec-04	Barium	mg/kg		1028	49	
SC-062	Dec-04	Beryllium	mg/kg		2.53	0.63	
SC-062	Dec-04	Cadmium	mg/kg	0.029	9.11	ND	
SC-062	Dec-04	Chromium	mg/kg		368	17	
SC-062	Dec-04	Cobalt	mg/kg		60.1	7.7	
SC-062	Dec-04	Lead	mg/kg		504	14	
SC-062	Dec-04	Mercury	mg/kg		0.9	0.034	
SC-062	Dec-04	Nickel	mg/kg		138	22	
SC-062	Dec-04	Selenium	mg/kg	0.18	0.56	ND	
SC-062	Dec-04	Vanadium	mg/kg		446	21	
SC-063	Dec-04	Acetone	ug/kg	4.0	20	ND	
SC-063	Dec-04	Benzene	ug/kg	1.4	5	ND	
SC-063	Dec-04	n-Butylbenzene	ug/kg	1.6	5	ND	
SC-063	Dec-04	sec-Butylbenzene	ug/kg	1.5	5	ND	
SC-063	Dec-04	Ethylbenzene	ug/kg	1.4	5	ND	
SC-063	Dec-04	4-Isopropyltoluene (p-Isopropyltoluene)	ug/kg	1.6	5	ND	

Table I-8. Summary of Soil Analytical Data for Unsaturated Zone Monitoring – Years 1-10 (continued)

Sample ID	Date	Constituent	Units	Reporting Limit	Monitoring Limit	Result	Flag
SC-063	Dec-04	n-Propylbenzene	ug/kg	1.6	5	ND	
SC-063	Dec-04	Toluene	ug/kg	1.4	5	ND	
SC-063	Dec-04	1,2,4-Trimethylbenzene	ug/kg	1.7	5	ND	
SC-063	Dec-04	1,3,5-Trimethylbenzene	ug/kg	1.6	5	ND	
SC-063	Dec-04	2-Butanone (MEK)	ug/kg	4.8	20	ND	
SC-063	Dec-04	Xylenes	ug/kg	4.2	5	ND	
SC-063	Dec-04	Acenaphthylene	ug/kg	1.1	330	ND	
SC-063	Dec-04	Anthracene	ug/kg	1.1	660	ND	
SC-063	Dec-04	Benzo(a)anthracene	ug/kg	1.4	660	ND	
SC-063	Dec-04	Benzo(g,h,i)perylene	ug/kg	2.4	330	ND	
SC-063	Dec-04	Butyl benzyl phthalate	ug/kg	5.1	660	ND	
SC-063	Dec-04	Chrysene	ug/kg	2.2	660	ND	
SC-063	Dec-04	Di-n-octyl phthalate	ug/kg	11	660	ND	
SC-063	Dec-04	Dibenz(a,h)anthracene	ug/kg	2.7	660	ND	
SC-063	Dec-04	Fluorene	ug/kg	2	330	ND	
SC-063	Dec-04	Indeno(1,2,3-cd)pyrene	ug/kg	2.6	330	ND	
SC-063	Dec-04	Methyl Chrysene (6-Methylchrysene)	ug/kg	12	330	ND	
SC-063	Dec-04	1-Methylnaphthalene	ug/kg	1.2	660	ND	
SC-063	Dec-04	2-Methylnaphthalene	ug/kg		330	110.0	
SC-063	Dec-04	Naphthalene	ug/kg	2.1	660	ND	
SC-063	Dec-04	Phenanthrene	ug/kg	1.2	660	ND	
SC-063	Dec-04	Pyrene	ug/kg	2.5	660	ND	
SC-063	Dec-04	Antimony	mg/kg		6.69	1.6	
SC-063	Dec-04	Arsenic	mg/kg		55.5	13	
SC-063	Dec-04	Barium	mg/kg		1028	77	
SC-063	Dec-04	Beryllium	mg/kg		2.53	0.9	
SC-063	Dec-04	Cadmium	mg/kg		9.11	0.11	
SC-063	Dec-04	Chromium	mg/kg		368	260.0	
SC-063	Dec-04	Cobalt	mg/kg		60.1	10.00	

Table I-8. Summary of Soil Analytical Data for Unsaturated Zone Monitoring – Years 1-10 (continued)

Sample ID	Date	Constituent	Units	Reporting Limit	Monitoring Limit	Result	Flag
SC-063	Dec-04	Lead	mg/kg		504	39	
SC-063	Dec-04	Mercury	mg/kg		0.9	0.053	
SC-063	Dec-04	Nickel	mg/kg		138	37	
SC-063	Dec-04	Selenium	mg/kg	0.2	0.56	ND	
SC-063	Dec-04	Vanadium	mg/kg		446	76	
SC-064	Dec-04	Acetone	ug/kg	4.2	20	ND	
SC-064	Dec-04	Benzene	ug/kg	1.4	5	ND	
SC-064	Dec-04	n-Butylbenzene	ug/kg	1.7	5	ND	
SC-064	Dec-04	sec-Butylbenzene	ug/kg	1.6	5	ND	
SC-064	Dec-04	Ethylbenzene	ug/kg	1.4	5	ND	
SC-064	Dec-04	4-Isopropyltoluene (p-Isopropyltoluene)	ug/kg	1.7	5	ND	
SC-064	Dec-04	n-Propylbenzene	ug/kg	1.7	5	ND	
SC-064	Dec-04	Toluene	ug/kg	1.4	5	ND	
SC-064	Dec-04	1,2,4-Trimethylbenzene	ug/kg	1.8	5	ND	
SC-064	Dec-04	1,3,5-Trimethylbenzene	ug/kg	1.7	5	ND	
SC-064	Dec-04	2-Butanone (MEK)	ug/kg	5.1	20	ND	
SC-064	Dec-04	Xylenes	ug/kg	4.4	5	ND	
SC-064	Dec-04	Acenaphthylene	ug/kg	5.9	330	ND	
SC-064	Dec-04	Anthracene	ug/kg	5.6	660	ND	
SC-064	Dec-04	Benzo(a)anthracene	ug/kg	7.2	660	ND	
SC-064	Dec-04	Benzo(g,h,i)perylene	ug/kg	12.0	330	ND	
SC-064	Dec-04	Butyl benzyl phthalate	ug/kg	27.0	660	ND	
SC-064	Dec-04	Chrysene	ug/kg	12.0	660	ND	
SC-064	Dec-04	Di-n-octyl phthalate	ug/kg	57.0	660	ND	
SC-064	Dec-04	Dibenz(a,h)anthracene	ug/kg	14.0	660	ND	
SC-064	Dec-04	Fluorene	ug/kg	10.0	330	ND	
SC-064	Dec-04	Indeno(1,2,3-cd)pyrene	ug/kg	14.0	330	ND	
SC-064	Dec-04	Methyl Chrysene (6-Methylchrysene)	ug/kg	65.0	330	ND	
SC-064	Dec-04	1-Methylnaphthalene	ug/kg		660	290	

Table I-8. Summary of Soil Analytical Data for Unsaturated Zone Monitoring – Years 1-10 (continued)

Sample ID	Date	Constituent	Units	Reporting Limit	Monitoring Limit	Result	Flag
SC-064	Dec-04	2-Methylnaphthalene	ug/kg		330	760	
SC-064	Dec-04	Naphthalene	ug/kg		660	260	
SC-064	Dec-04	Phenanthrene	ug/kg	6.5	660	ND	
SC-064	Dec-04	Pyrene	ug/kg	13.0	660	ND	
SC-064	Dec-04	Antimony	mg/kg		6.69	7.8	
SC-064	Dec-04	Arsenic	mg/kg		55.5	14	
SC-064	Dec-04	Barium	mg/kg		1028	150	
SC-064	Dec-04	Beryllium	mg/kg		2.53	0.78	
SC-064	Dec-04	Cadmium	mg/kg		9.11	3.4	
SC-064	Dec-04	Chromium	mg/kg		368	1000	
SC-064	Dec-04	Cobalt	mg/kg		60.1	11	
SC-064	Dec-04	Lead	mg/kg		504	270	
SC-064	Dec-04	Mercury	mg/kg		0.9	0.073	
SC-064	Dec-04	Nickel	mg/kg		138	62	
SC-064	Dec-04	Selenium	mg/kg		0.56	2.8	
SC-064	Dec-04	Vanadium	mg/kg		446	180	
SC-064-Retest	Dec-04	Antimony	mg/kg		6.69	2.3	
SC-064-Retest	Dec-04	Chromium	mg/kg		368	610	
SC-064-Retest	Dec-04	Selenium	mg/kg		0.56	2.3	
SC-065	Nov-05	Acetone	ug/kg	5.0	20	ND	
SC-065	Nov-05	Benzene	ug/kg	0.79	5	ND	
SC-065	Nov-05	n-Butylbenzene	ug/kg	1.3	5	ND	
SC-065	Nov-05	sec-Butylbenzene	ug/kg	0.97	5	ND	
SC-065	Nov-05	Ethylbenzene	ug/kg	0.74	5	ND	
SC-065	Nov-05	4-Isopropyltoluene (p-Isopropyltoluene)	ug/kg	0.94	5	ND	
SC-065	Nov-05	n-Propylbenzene	ug/kg	0.85	5	ND	
SC-065	Nov-05	Toluene	ug/kg	2.0	5	ND	
SC-065	Nov-05	1,2,4-Trimethylbenzene	ug/kg	0.93	5	ND	
SC-065	Nov-05	1,3,5-Trimethylbenzene	ug/kg	0.98	5	ND	

Table I-8. Summary of Soil Analytical Data for Unsaturated Zone Monitoring – Years 1-10 (continued)

Sample ID	Date	Constituent	Units	Reporting Limit	Monitoring Limit	Result	Flag
SC-065	Nov-05	2-Butanone (MEK)	ug/kg	2.5	20	ND	
SC-065	Nov-05	Xylenes	ug/kg	2.1	5	ND	
SC-065	Nov-05	Acenaphthylene	ug/kg	10.0	330	ND	
SC-065	Nov-05	Anthracene	ug/kg	4.1	660	ND	
SC-065	Nov-05	Benzo(a)anthracene	ug/kg	8.4	660	ND	
SC-065	Nov-05	Benzo(g,h,i)perylene	ug/kg	8.5	330	ND	
SC-065	Nov-05	Butyl benzyl phthalate	ug/kg	23.0	660	ND	
SC-065	Nov-05	Chrysene	ug/kg	10.0	660	ND	
SC-065	Nov-05	Di-n-octyl phthalate	ug/kg	34.0	660	ND	
SC-065	Nov-05	Dibenz(a,h)anthracene	ug/kg	8.3	660	ND	
SC-065	Nov-05	Fluorene	ug/kg	8.8	330	ND	
SC-065	Nov-05	Indeno(1,2,3-cd)pyrene	ug/kg	13.0	330	ND	
SC-065	Nov-05	Methyl Chrysene (6-Methylchrysene)	ug/kg	6.6	330	ND	
SC-065	Nov-05	1-Methylnaphthalene	ug/kg	10.0	660	ND	
SC-065	Nov-05	2-Methylnaphthalene	ug/kg	48.0	330	ND	
SC-065	Nov-05	Naphthalene	ug/kg	8.9	660	ND	
SC-065	Nov-05	Phenanthrene	ug/kg	6.1	660	ND	
SC-065	Nov-05	Pyrene	ug/kg	8.6	660	ND	
SC-065	Nov-05	Antimony	mg/kg	0.43	6.69	ND	
SC-065	Nov-05	Arsenic	mg/kg		55.5	8.5	
SC-065	Nov-05	Barium	mg/kg		1028	69.0	
SC-065	Nov-05	Beryllium	mg/kg		2.53	0.53	
SC-065	Nov-05	Cadmium	mg/kg		9.11	0.37	
SC-065	Nov-05	Chromium	mg/kg		368	18.0	
SC-065	Nov-05	Cobalt	mg/kg		60.1	7.1	
SC-065	Nov-05	Lead	mg/kg		504	10.0	
SC-065	Nov-05	Mercury	mg/kg		0.9	0.023	
SC-065	Nov-05	Nickel	mg/kg		138	22.0	
SC-065	Nov-05	Selenium	mg/kg	0.4	0.56	ND	

Table I-8. Summary of Soil Analytical Data for Unsaturated Zone Monitoring – Years 1-10 (continued)

Sample ID	Date	Constituent	Units	Reporting Limit	Monitoring Limit	Result	Flag
SC-065	Nov-05	Vanadium	mg/kg		446	20.0	
SC-066	Nov-05	Acetone	ug/kg	5.0	20	ND	
SC-066	Nov-05	Benzene	ug/kg	0.80	5	ND	
SC-066	Nov-05	n-Butylbenzene	ug/kg	1.3	5	ND	
SC-066	Nov-05	sec-Butylbenzene	ug/kg	0.98	5	ND	
SC-066	Nov-05	Ethylbenzene	ug/kg	0.74	5	ND	
SC-066	Nov-05	4-Isopropyltoluene (p-Isopropyltoluene)	ug/kg	0.95	5	ND	
SC-066	Nov-05	n-Propylbenzene	ug/kg	0.86	5	ND	
SC-066	Nov-05	Toluene	ug/kg	2.0	5	ND	
SC-066	Nov-05	1,2,4-Trimethylbenzene	ug/kg	0.94	5	ND	
SC-066	Nov-05	1,3,5-Trimethylbenzene	ug/kg	0.99	5	ND	
SC-066	Nov-05	2-Butanone (MEK)	ug/kg	2.6	20	ND	
SC-066	Nov-05	Xylenes	ug/kg	2.1	5	ND	
SC-066	Nov-05	Acenaphthylene	ug/kg	10.0	330	ND	
SC-066	Nov-05	Anthracene	ug/kg	4.1	660	ND	
SC-066	Nov-05	Benzo(a)anthracene	ug/kg	8.4	660	ND	
SC-066	Nov-05	Benzo(g,h,i)perylene	ug/kg	8.5	330	ND	
SC-066	Nov-05	Butyl benzyl phthalate	ug/kg	23.0	660	ND	
SC-066	Nov-05	Chrysene	ug/kg	10.0	660	ND	
SC-066	Nov-05	Di-n-octyl phthalate	ug/kg	34.0	660	ND	
SC-066	Nov-05	Dibenz(a,h)anthracene	ug/kg	8.3	660	ND	
SC-066	Nov-05	Fluorene	ug/kg	8.8	330	ND	
SC-066	Nov-05	Indeno(1,2,3-cd)pyrene	ug/kg	13.0	330	ND	
SC-066	Nov-05	Methyl Chrysene (6-Methylchrysene)	ug/kg	6.6	330	ND	
SC-066	Nov-05	1-Methylnaphthalene	ug/kg	10.0	660	ND	
SC-066	Nov-05	2-Methylnaphthalene	ug/kg	48.0	330	ND	
SC-066	Nov-05	Naphthalene	ug/kg	8.9	660	ND	
SC-066	Nov-05	Phenanthrene	ug/kg	6.1	660	ND	
SC-066	Nov-05	Pyrene	ug/kg	8.6	660	ND	

Table I-8. Summary of Soil Analytical Data for Unsaturated Zone Monitoring – Years 1-10 (continued)

Sample ID	Date	Constituent	Units	Reporting Limit	Monitoring Limit	Result	Flag
SC-066	Nov-05	Antimony	mg/kg	0.42	6.69	ND	
SC-066	Nov-05	Arsenic	mg/kg		55.5	9	
SC-066	Nov-05	Barium	mg/kg		1028	41	
SC-066	Nov-05	Beryllium	mg/kg		2.53	0.29	
SC-066	Nov-05	Cadmium	mg/kg		9.11	0.37	
SC-066	Nov-05	Chromium	mg/kg		368	42	
SC-066	Nov-05	Cobalt	mg/kg		60.1	6.5	
SC-066	Nov-05	Lead	mg/kg		504	12	
SC-066	Nov-05	Mercury	mg/kg		0.9	0.0074	
SC-066	Nov-05	Nickel	mg/kg		138	19	
SC-066	Nov-05	Selenium	mg/kg	0.13	0.56	ND	
SC-066	Nov-05	Vanadium	mg/kg		446	20	
SC-067	Nov-05	Acetone	ug/kg	4.7	20	ND	
SC-067	Nov-05	Benzene	ug/kg	0.75	5	ND	
SC-067	Nov-05	n-Butylbenzene	ug/kg	1.2	5	ND	
SC-067	Nov-05	sec-Butylbenzene	ug/kg	0.92	5	ND	
SC-067	Nov-05	Ethylbenzene	ug/kg	0.70	5	ND	
SC-067	Nov-05	4-Isopropyltoluene (p-Isopropyltoluene)	ug/kg	0.90	5	ND	
SC-067	Nov-05	n-Propylbenzene	ug/kg	0.81	5	ND	
SC-067	Nov-05	Toluene	ug/kg	1.9	5	ND	
SC-067	Nov-05	1,2,4-Trimethylbenzene	ug/kg	0.88	5	ND	
SC-067	Nov-05	1,3,5-Trimethylbenzene	ug/kg	0.93	5	ND	
SC-067	Nov-05	2-Butanone (MEK)	ug/kg	2.4	20	ND	
SC-067	Nov-05	Xylenes	ug/kg	2.0	5	ND	
SC-067	Nov-05	Acenaphthylene	ug/kg	9.5	330	ND	
SC-067	Nov-05	Anthracene	ug/kg	3.9	660	ND	
SC-067	Nov-05	Benzo(a)anthracene	ug/kg	8.0	660	ND	
SC-067	Nov-05	Benzo(g,h,i)perylene	ug/kg	8.1	330	ND	
SC-067	Nov-05	Butyl benzyl phthalate	ug/kg	22.0	660	ND	

Table I-8. Summary of Soil Analytical Data for Unsaturated Zone Monitoring – Years 1-10 (continued)

Sample ID	Date	Constituent	Units	Reporting Limit	Monitoring Limit	Result	Flag
SC-067	Nov-05	Chrysene	ug/kg	9.5	660	ND	
SC-067	Nov-05	Di-n-octyl phthalate	ug/kg	33.0	660	ND	
SC-067	Nov-05	Dibenz(a,h)anthracene	ug/kg	7.9	660	ND	
SC-067	Nov-05	Fluorene	ug/kg	8.4	330	ND	
SC-067	Nov-05	Indeno(1,2,3-cd)pyrene	ug/kg	12.0	330	ND	
SC-067	Nov-05	Methyl Chrysene (6-Methylchrysene)	ug/kg	6.3	330	ND	
SC-067	Nov-05	1-Methylnaphthalene	ug/kg	9.7	660	ND	
SC-067	Nov-05	2-Methylnaphthalene	ug/kg	46.0	330	ND	
SC-067	Nov-05	Naphthalene	ug/kg	8.5	660	ND	
SC-067	Nov-05	Phenanthrene	ug/kg	5.8	660	ND	
SC-067	Nov-05	Pyrene	ug/kg	8.2	660	ND	
SC-067	Nov-05	Antimony	mg/kg	0.39	6.69	ND	
SC-067	Nov-05	Arsenic	mg/kg		55.5	19	
SC-067	Nov-05	Barium	mg/kg		1028	44	
SC-067	Nov-05	Beryllium	mg/kg		2.53	0.41	
SC-067	Nov-05	Cadmium	mg/kg		9.11	0.48	
SC-067	Nov-05	Chromium	mg/kg		368	32	
SC-067	Nov-05	Cobalt	mg/kg		60.1	6.7	
SC-067	Nov-05	Lead	mg/kg		504	11	
SC-067	Nov-05	Mercury	mg/kg		0.9	0.016	
SC-067	Nov-05	Nickel	mg/kg		138	18	
SC-067	Nov-05	Selenium	mg/kg	0.13	0.56	ND	
SC-067	Nov-05	Vanadium	mg/kg		446	18	
SC-068	Nov-05	Acetone	ug/kg	4.8	20	ND	
SC-068	Nov-05	Benzene	ug/kg	0.77	5	ND	
SC-068	Nov-05	n-Butylbenzene	ug/kg	1.2	5	ND	
SC-068	Nov-05	sec-Butylbenzene	ug/kg	0.94	5	ND	
SC-068	Nov-05	Ethylbenzene	ug/kg	0.72	5	ND	
SC-068	Nov-05	4-Isopropyltoluene (p-Isopropyltoluene)	ug/kg	0.92	5	ND	

Table I-8. Summary of Soil Analytical Data for Unsaturated Zone Monitoring – Years 1-10 (continued)

Sample ID	Date	Constituent	Units	Reporting Limit	Monitoring Limit	Result	Flag
SC-068	Nov-05	n-Propylbenzene	ug/kg	0.83	5	ND	
SC-068	Nov-05	Toluene	ug/kg	1.9	5	ND	
SC-068	Nov-05	1,2,4-Trimethylbenzene	ug/kg	0.91	5	ND	
SC-068	Nov-05	1,3,5-Trimethylbenzene	ug/kg	0.95	5	ND	
SC-068	Nov-05	2-Butanone (MEK)	ug/kg	2.5	20	ND	
SC-068	Nov-05	Xylenes	ug/kg	2.0	5	ND	
SC-068	Nov-05	Acenaphthylene	ug/kg	9.8	330	ND	
SC-068	Nov-05	Anthracene	ug/kg	4.0	660	ND	
SC-068	Nov-05	Benzo(a)anthracene	ug/kg	8.2	660	ND	
SC-068	Nov-05	Benzo(g,h,i)perylene	ug/kg	8.3	330	ND	
SC-068	Nov-05	Butyl benzyl phthalate	ug/kg	22.0	660	ND	
SC-068	Nov-05	Chrysene	ug/kg	9.8	660	ND	
SC-068	Nov-05	Di-n-octyl phthalate	ug/kg	34.0	660	ND	
SC-068	Nov-05	Dibenz(a,h)anthracene	ug/kg	8.1	660	ND	
SC-068	Nov-05	Fluorene	ug/kg	8.6	330	ND	
SC-068	Nov-05	Indeno(1,2,3-cd)pyrene	ug/kg	12.0	330	ND	
SC-068	Nov-05	Methyl Chrysene (6-Methylchrysene)	ug/kg	6.5	330	ND	
SC-068	Nov-05	1-Methylnaphthalene	ug/kg	10.0	660	ND	
SC-068	Nov-05	2-Methylnaphthalene	ug/kg	47.0	330	ND	
SC-068	Nov-05	Naphthalene	ug/kg	8.7	660	ND	
SC-068	Nov-05	Phenanthrene	ug/kg	5.9	660	ND	
SC-068	Nov-05	Pyrene	ug/kg	8.4	660	ND	
SC-068	Nov-05	Antimony	mg/kg	0.41	6.69	ND	
SC-068	Nov-05	Arsenic	mg/kg		55.5	9.7	
SC-068	Nov-05	Barium	mg/kg		1028	52	
SC-068	Nov-05	Beryllium	mg/kg		2.53	0.4	
SC-068	Nov-05	Cadmium	mg/kg		9.11	0.48	
SC-068	Nov-05	Chromium	mg/kg		368	160	
SC-068	Nov-05	Cobalt	mg/kg		60.1	8.8	

Table I-8. Summary of Soil Analytical Data for Unsaturated Zone Monitoring – Years 1-10 (continued)

Sample ID	Date	Constituent	Units	Reporting Limit	Monitoring Limit	Result	Flag
SC-068	Nov-05	Lead	mg/kg		504	13.0	
SC-068	Nov-05	Mercury	mg/kg		0.9	0.068	
SC-068	Nov-05	Nickel	mg/kg		138	86.0	
SC-068	Nov-05	Selenium	mg/kg	0.13	0.56	ND	
SC-068	Nov-05	Vanadium	mg/kg		446	17.0	
SC-069	Nov-05	Acetone	ug/kg	4.9	20	ND	
SC-069	Nov-05	Benzene	ug/kg	0.78	5	ND	
SC-069	Nov-05	n-Butylbenzene	ug/kg	1.2	5	ND	
SC-069	Nov-05	sec-Butylbenzene	ug/kg	0.95	5	ND	
SC-069	Nov-05	Ethylbenzene	ug/kg	0.73	5	ND	
SC-069	Nov-05	4-Isopropyltoluene (p-Isopropyltoluene)	ug/kg	0.93	5	ND	
SC-069	Nov-05	n-Propylbenzene	ug/kg	0.84	5	ND	
SC-069	Nov-05	Toluene	ug/kg	1.9	5	ND	
SC-069	Nov-05	1,2,4-Trimethylbenzene	ug/kg	0.92	5	ND	
SC-069	Nov-05	1,3,5-Trimethylbenzene	ug/kg	0.97	5	ND	
SC-069	Nov-05	2-Butanone (MEK)	ug/kg	2.5	20	ND	
SC-069	Nov-05	Xylenes	ug/kg	2.0	5	ND	
SC-069	Nov-05	Acenaphthylene	ug/kg	9.8	330	ND	
SC-069	Nov-05	Anthracene	ug/kg	4.1	660	ND	
SC-069	Nov-05	Benzo(a)anthracene	ug/kg	8.2	660	ND	
SC-069	Nov-05	Benzo(g,h,i)perylene	ug/kg	8.4	330	ND	
SC-069	Nov-05	Butyl benzyl phthalate	ug/kg	23	660	ND	
SC-069	Nov-05	Chrysene	ug/kg	9.8	660	ND	
SC-069	Nov-05	Di-n-octyl phthalate	ug/kg	34.0	660	ND	
SC-069	Nov-05	Dibenz(a,h)anthracene	ug/kg	8.1	660	ND	
SC-069	Nov-05	Fluorene	ug/kg	8.7	330	ND	
SC-069	Nov-05	Indeno(1,2,3-cd)pyrene	ug/kg	12.0	330	ND	
SC-069	Nov-05	Methyl Chrysene (6-Methylchrysene)	ug/kg	6.5	330	ND	
SC-069	Nov-05	1-Methylnaphthalene	ug/kg	10.0	660	ND	

Table I-8. Summary of Soil Analytical Data for Unsaturated Zone Monitoring – Years 1-10 (continued)

Sample ID	Date	Constituent	Units	Reporting Limit	Monitoring Limit	Result	Flag
SC-069	Nov-05	2-Methylnaphthalene	ug/kg	47	330	ND	
SC-069	Nov-05	Naphthalene	ug/kg	8.8	660	ND	
SC-069	Nov-05	Phenanthrene	ug/kg	6.0	660	ND	
SC-069	Nov-05	Pyrene	ug/kg	8.5	660	ND	
SC-069	Nov-05	Antimony	mg/kg	0.44	6.69	ND	
SC-069	Nov-05	Arsenic	mg/kg		55.5	7.3	
SC-069	Nov-05	Barium	mg/kg		1028	38.0	
SC-069	Nov-05	Beryllium	mg/kg		2.53	0.43	
SC-069	Nov-05	Cadmium	mg/kg		9.11	0.34	
SC-069	Nov-05	Chromium	mg/kg		368	21.0	
SC-069	Nov-05	Cobalt	mg/kg		60.1	7.4	
SC-069	Nov-05	Lead	mg/kg		504	9.7	
SC-069	Nov-05	Mercury	mg/kg		0.9	0.023	
SC-069	Nov-05	Nickel	mg/kg		138	20.0	
SC-069	Nov-05	Selenium	mg/kg	0.12	0.56	ND	
SC-069	Nov-05	Vanadium	mg/kg		446	17.0	
SC-070	Nov-05	Acetone	ug/kg	4.9	20	ND	
SC-070	Nov-05	Benzene	ug/kg	0.78	5	ND	
SC-070	Nov-05	n-Butylbenzene	ug/kg	1.2	5	ND	
SC-070	Nov-05	sec-Butylbenzene	ug/kg	0.95	5	ND	
SC-070	Nov-05	Ethylbenzene	ug/kg	0.72	5	ND	
SC-070	Nov-05	4-Isopropyltoluene (p-Isopropyltoluene)	ug/kg	0.93	5	ND	
SC-070	Nov-05	n-Propylbenzene	ug/kg	0.84	5	ND	
SC-070	Nov-05	Toluene	ug/kg	1.9	5	ND	
SC-070	Nov-05	1,2,4-Trimethylbenzene	ug/kg	0.91	5	ND	
SC-070	Nov-05	1,3,5-Trimethylbenzene	ug/kg	0.96	5	ND	
SC-070	Nov-05	2-Butanone (MEK)	ug/kg	2.5	20	ND	
SC-070	Nov-05	Xylenes	ug/kg	2.0	5	ND	
SC-070	Nov-05	Acenaphthylene	ug/kg	9.8	330	ND	

Table I-8. Summary of Soil Analytical Data for Unsaturated Zone Monitoring – Years 1-10 (continued)

Sample ID	Date	Constituent	Units	Reporting Limit	Monitoring Limit	Result	Flag
SC-070	Nov-05	Anthracene	ug/kg	4.1	660	ND	
SC-070	Nov-05	Benzo(a)anthracene	ug/kg	8.2	660	ND	
SC-070	Nov-05	Benzo(g,h,i)perylene	ug/kg	8.3	330	ND	
SC-070	Nov-05	Butyl benzyl phthalate	ug/kg	23.0	660	ND	
SC-070	Nov-05	Chrysene	ug/kg	9.8	660	ND	
SC-070	Nov-05	Di-n-octyl phthalate	ug/kg	34.0	660	ND	
SC-070	Nov-05	Dibenz(a,h)anthracene	ug/kg	8.1	660	ND	
SC-070	Nov-05	Fluorene	ug/kg	8.7	330	ND	
SC-070	Nov-05	Indeno(1,2,3-cd)pyrene	ug/kg	12.0	330	ND	
SC-070	Nov-05	Methyl Chrysene (6-Methylchrysene)	ug/kg	6.5	330	ND	
SC-070	Nov-05	1-Methylnaphthalene	ug/kg	10.0	660	ND	
SC-070	Nov-05	2-Methylnaphthalene	ug/kg	47.0	330	ND	
SC-070	Nov-05	Naphthalene	ug/kg	8.8	660	ND	
SC-070	Nov-05	Phenanthrene	ug/kg	6.0	660	ND	
SC-070	Nov-05	Pyrene	ug/kg	8.4	660	ND	
SC-070	Nov-05	Antimony	mg/kg	0.46	6.69	ND	
SC-070	Nov-05	Arsenic	mg/kg		55.5	8.0	
SC-070	Nov-05	Barium	mg/kg		1028	50.0	
SC-070	Nov-05	Beryllium	mg/kg		2.53	0.51	
SC-070	Nov-05	Cadmium	mg/kg		9.11	0.37	
SC-070	Nov-05	Chromium	mg/kg		368	16.0	
SC-070	Nov-05	Cobalt	mg/kg		60.1	8.7	
SC-070	Nov-05	Lead	mg/kg		504	11.0	
SC-070	Nov-05	Mercury	mg/kg		0.9	0.019	
SC-070	Nov-05	Nickel	mg/kg		138	23.0	
SC-070	Nov-05	Selenium	mg/kg	0.12	0.56	ND	
SC-070	Nov-05	Vanadium	mg/kg		446	19.0	
SC-071	Nov-05	Acetone	ug/kg	5.0	20	ND	
SC-071	Nov-05	Benzene	ug/kg	0.80	5	ND	

Table I-8. Summary of Soil Analytical Data for Unsaturated Zone Monitoring – Years 1-10 (continued)

Sample ID	Date	Constituent	Units	Reporting Limit	Monitoring Limit	Result	Flag
SC-071	Nov-05	n-Butylbenzene	ug/kg	1.3	5	ND	
SC-071	Nov-05	sec-Butylbenzene	ug/kg	0.98	5	ND	
SC-071	Nov-05	Ethylbenzene	ug/kg	0.75	5	ND	
SC-071	Nov-05	4-Isopropyltoluene (p-Isopropyltoluene)	ug/kg	0.96	5	ND	
SC-071	Nov-05	n-Propylbenzene	ug/kg	0.86	5	ND	
SC-071	Nov-05	Toluene	ug/kg	2.0	5	ND	
SC-071	Nov-05	1,2,4-Trimethylbenzene	ug/kg	0.94	5	ND	
SC-071	Nov-05	1,3,5-Trimethylbenzene	ug/kg	0.99	5	ND	
SC-071	Nov-05	2-Butanone (MEK)	ug/kg	2.6	20	ND	
SC-071	Nov-05	Xylenes	ug/kg	2.1	5	ND	
SC-071	Nov-05	Acenaphthylene	ug/kg	10.0	330	ND	
SC-071	Nov-05	Anthracene	ug/kg	4.1	660	ND	
SC-071	Nov-05	Benzo(a)anthracene	ug/kg	8.4	660	ND	
SC-071	Nov-05	Benzo(g,h,i)perylene	ug/kg	8.5	330	ND	
SC-071	Nov-05	Butyl benzyl phthalate	ug/kg	23.0	660	ND	
SC-071	Nov-05	Chrysene	ug/kg	10.0	660	ND	
SC-071	Nov-05	Di-n-octyl phthalate	ug/kg	34.0	660	ND	
SC-071	Nov-05	Dibenz(a,h)anthracene	ug/kg	8.3	660	ND	
SC-071	Nov-05	Fluorene	ug/kg	8.8	330	ND	
SC-071	Nov-05	Indeno(1,2,3-cd)pyrene	ug/kg	13.0	330	ND	
SC-071	Nov-05	Methyl Chrysene (6-Methylchrysene)	ug/kg	6.7	330	ND	
SC-071	Nov-05	1-Methylnaphthalene	ug/kg	10.0	660	ND	
SC-071	Nov-05	2-Methylnaphthalene	ug/kg	48.0	330	ND	
SC-071	Nov-05	Naphthalene	ug/kg	9.0	660	ND	
SC-071	Nov-05	Phenanthrene	ug/kg	6.1	660	ND	
SC-071	Nov-05	Pyrene	ug/kg	8.6	660	ND	
SC-071	Nov-05	Antimony	mg/kg	0.49	6.69	ND	
SC-071	Nov-05	Arsenic	mg/kg		55.5	8.5	
SC-071	Nov-05	Barium	mg/kg		1028	64.0	

Table I-8. Summary of Soil Analytical Data for Unsaturated Zone Monitoring – Years 1-10 (continued)

Sample ID	Date	Constituent	Units	Reporting Limit	Monitoring Limit	Result	Flag
SC-071	Nov-05	Beryllium	mg/kg		2.53	0.55	
SC-071	Nov-05	Cadmium	mg/kg		9.11	0.45	
SC-071	Nov-05	Chromium	mg/kg		368	33.0	
SC-071	Nov-05	Cobalt	mg/kg		60.1	8.8	
SC-071	Nov-05	Lead	mg/kg		504	15.0	
SC-071	Nov-05	Mercury	mg/kg		0.9	0.051	
SC-071	Nov-05	Nickel	mg/kg		138	24.0	
SC-071	Nov-05	Selenium	mg/kg	0.13	0.56	ND	
SC-071	Nov-05	Vanadium	mg/kg		446	23.0	
SC-072	Nov-05	Acetone	ug/kg	5.0	20	ND	
SC-072	Nov-05	Benzene	ug/kg	0.80	5	ND	
SC-072	Nov-05	n-Butylbenzene	ug/kg	1.3	5	ND	
SC-072	Nov-05	sec-Butylbenzene	ug/kg	0.98	5	ND	
SC-072	Nov-05	Ethylbenzene	ug/kg	0.74	5	ND	
SC-072	Nov-05	4-Isopropyltoluene (p-Isopropyltoluene)	ug/kg	0.95	5	ND	
SC-072	Nov-05	n-Propylbenzene	ug/kg	0.86	5	ND	
SC-072	Nov-05	Toluene	ug/kg	2.0	5	ND	
SC-072	Nov-05	1,2,4-Trimethylbenzene	ug/kg	0.94	5	ND	
SC-072	Nov-05	1,3,5-Trimethylbenzene	ug/kg	0.99	5	ND	
SC-072	Nov-05	2-Butanone (MEK)	ug/kg	2.6	20	ND	
SC-072	Nov-05	Xylenes	ug/kg	2.1	5	ND	
SC-072	Nov-05	Acenaphthylene	ug/kg	10.0	330	ND	
SC-072	Nov-05	Anthracene	ug/kg	4.2	660	ND	
SC-072	Nov-05	Benzo(a)anthracene	ug/kg	8.5	660	ND	
SC-072	Nov-05	Benzo(g,h,i)perylene	ug/kg	8.6	330	ND	
SC-072	Nov-05	Butyl benzyl phthalate	ug/kg	23.0	660	ND	
SC-072	Nov-05	Chrysene	ug/kg	10.0	660	ND	
SC-072	Nov-05	Di-n-octyl phthalate	ug/kg	35.0	660	ND	
SC-072	Nov-05	Dibenz(a,h)anthracene	ug/kg	8.4	660	ND	

Table I-8. Summary of Soil Analytical Data for Unsaturated Zone Monitoring – Years 1-10 (continued)

Sample ID	Date	Constituent	Units	Reporting Limit	Monitoring Limit	Result	Flag
SC-072	Nov-05	Fluorene	ug/kg	8.9	330	ND	
SC-072	Nov-05	Indeno(1,2,3-cd)pyrene	ug/kg	13.0	330	ND	
SC-072	Nov-05	Methyl Chrysene (6-Methylchrysene)	ug/kg	6.7	330	ND	
SC-072	Nov-05	1-Methylnaphthalene	ug/kg	10.0	660	ND	
SC-072	Nov-05	2-Methylnaphthalene	ug/kg	49.0	330	ND	
SC-072	Nov-05	Naphthalene	ug/kg	9.1	660	ND	
SC-072	Nov-05	Phenanthrene	ug/kg	6.2	660	ND	
SC-072	Nov-05	Pyrene	ug/kg	8.7	660	ND	
SC-072	Nov-05	Antimony	mg/kg	0.46	6.69	ND	
SC-072	Nov-05	Arsenic	mg/kg		55.5	10.0	
SC-072	Nov-05	Barium	mg/kg		1028	83.0	
SC-072	Nov-05	Beryllium	mg/kg		2.53	0.5	
SC-072	Nov-05	Cadmium	mg/kg		9.11	0.86	
SC-072	Nov-05	Chromium	mg/kg		368	260.0	
SC-072	Nov-05	Cobalt	mg/kg		60.1	8.6	
SC-072	Nov-05	Lead	mg/kg		504	39.0	
SC-072	Nov-05	Mercury	mg/kg		0.9	0.070	
SC-072	Nov-05	Nickel	mg/kg		138	30.0	
SC-072	Nov-05	Selenium	mg/kg		0.56	0.4	
SC-072	Nov-05	Vanadium	mg/kg		446	67.0	
SC-073	Nov-06	Acetone	ug/kg		20	5.9	
SC-073	Nov-06	Benzene	ug/kg	5.8	5	ND	
SC-073	Nov-06	n-Butylbenzene	ug/kg	5.8	5	ND	
SC-073	Nov-06	sec-Butylbenzene	ug/kg	5.8	5	ND	
SC-073	Nov-06	Carbon Disulfide	ug/kg	5.8	5	ND	
SC-073	Nov-06	Chlorobenzene	ug/kg	5.8	5	ND	
SC-073	Nov-06	Chloroform	ug/kg	5.8	5	ND	
SC-073	Nov-06	1,2-Dichloroethane	ug/kg	5.8	5	ND	
SC-073	Nov-06	1,4-Dioxane	ug/kg	5.8	500	ND	

Table I-8. Summary of Soil Analytical Data for Unsaturated Zone Monitoring – Years 1-10 (continued)

Sample ID	Date	Constituent	Units	Reporting Limit	Monitoring Limit	Result	Flag
SC-073	Nov-06	Ethylbenzene	ug/kg	5.8	5	ND	
SC-073	Nov-06	1,2-Dibromoethane (Ethylene Dibromide)	ug/kg	5.8	10	ND	
SC-073	Nov-06	4-Isopropyltoluene (p-Isopropyltoluene)	ug/kg	5.8	5	ND	
SC-073	Nov-06	2-Butanone (MEK)	ug/kg	5.8	20	ND	
SC-073	Nov-06	n-Propylbenzene	ug/kg	5.8	5	ND	
SC-073	Nov-06	Styrene	ug/kg	5.8	5	ND	
SC-073	Nov-06	Toluene	ug/kg	5.8	5	ND	
SC-073	Nov-06	1,3,5-Trimethylbenzene	ug/kg	5.8	5	ND	
SC-073	Nov-06	1,2,4-Trimethylbenzene	ug/kg	5.8	5	ND	
SC-073	Nov-06	Xylenes	ug/kg	5.8	5	ND	
SC-073	Nov-06	Acenaphthylene	ug/kg	38	330	ND	
SC-073	Nov-06	Anthracene	ug/kg	38	660	ND	
SC-073	Nov-06	Benzo(a)anthracene	ug/kg	38	660	ND	
SC-073	Nov-06	Benzo(b)fluoranthene	ug/kg	38	660	ND	
SC-073	Nov-06	Benzo(k)fluoranthene	ug/kg	38	660	ND	
SC-073	Nov-06	Benzo(g,h,i)perylene	ug/kg	38	330	ND	
SC-073	Nov-06	Benzo(a)pyrene	ug/kg	38	660	ND	
SC-073	Nov-06	Bis(2-ethylhexyl)phthalate	ug/kg		660	400	
SC-073	Nov-06	Butyl benzyl phthalate	ug/kg	190	660	ND	
SC-073	Nov-06	Chrysene	ug/kg	38	660	ND	
SC-073	Nov-06	Dibenz(a,h)acridine	ug/kg	190	330	ND	
SC-073	Nov-06	Dibenz(a,h)anthracene	ug/kg	38	660	ND	
SC-073	Nov-06	Dichlorobenzenes	ug/kg	190	660	ND	
SC-073	Nov-06	Diethyl phthalate	ug/kg	190	660	ND	
SC-073	Nov-06	7,12-Dimethylbenz(a)anthracene	ug/kg	190	660	ND	
SC-073	Nov-06	Dimethyl phthalate	ug/kg	190	660	ND	
SC-073	Nov-06	Di-n-butyl phthalate	ug/kg	190	660	ND	
SC-073	Nov-06	Di-n-octyl phthalate	ug/kg	190	660	ND	
SC-073	Nov-06	Fluoranthene	ug/kg	38	660	ND	

Table I-8. Summary of Soil Analytical Data for Unsaturated Zone Monitoring – Years 1-10 (continued)

Sample ID	Date	Constituent	Units	Reporting Limit	Monitoring Limit	Result	Flag
SC-073	Nov-06	Fluorene	ug/kg	38	330	ND	
SC-073	Nov-06	Indene	ug/kg	190	330	ND	
SC-073	Nov-06	Indeno(1,2,3-cd)pyrene	ug/kg	38	330	ND	
SC-073	Nov-06	Methyl Chrysene (6-Methylchrysene)	ug/kg	76	330	ND	
SC-073	Nov-06	1-Methylnaphthalene	ug/kg	38	660	ND	
SC-073	Nov-06	2-Methylnaphthalene	ug/kg	190	330	ND	
SC-073	Nov-06	Naphthalene	ug/kg	38	660	ND	
SC-073	Nov-06	Phenanthrene	ug/kg	38	660	ND	
SC-073	Nov-06	Pyrene	ug/kg	38	660	ND	
SC-073	Nov-06	Pyridine	ug/kg	760	660	ND	
SC-073	Nov-06	Quinoline	ug/kg	380	330	ND	
SC-073	Nov-06	Benzenethiol	ug/kg	190	3300	ND	
SC-073	Nov-06	Cresols (o,m,&p)	ug/kg	190	660	ND	
SC-073	Nov-06	2,4-Dimethylphenol	ug/kg	380	660	ND	
SC-073	Nov-06	2,4-Dinitrophenol	ug/kg	760	3300	ND	
SC-073	Nov-06	4-Nitrophenol	ug/kg	760	3300	ND	
SC-073	Nov-06	Phenol	ug/kg	190	660	ND	
SC-073	Nov-06	Antimony	mg/kg	2.2	6.69	ND	
SC-073	Nov-06	Arsenic	mg/kg		55.5	8.1	
SC-073	Nov-06	Barium	mg/kg		1028	50.0	
SC-073	Nov-06	Beryllium	mg/kg		2.53	0.52	
SC-073	Nov-06	Cadmium	mg/kg		9.11	0.38	
SC-073	Nov-06	Chromium	mg/kg		368	16.0	
SC-073	Nov-06	Cobalt	mg/kg		60.1	9.7	
SC-073	Nov-06	Lead	mg/kg		504	11.0	
SC-073	Nov-06	Mercury	mg/kg	19	0.9	ND	
SC-073	Nov-06	Nickel	mg/kg		138	25.0	
SC-073	Nov-06	Selenium	mg/kg	220	0.56	ND	
SC-073	Nov-06	Vanadium	mg/kg		446	20.0	

Table I-8. Summary of Soil Analytical Data for Unsaturated Zone Monitoring – Years 1-10 (continued)

Sample ID	Date	Constituent	Units	Reporting Limit	Monitoring Limit	Result	Flag
SC-073-Duplicate	Nov-06	Acetone	ug/kg	5.7	20	ND	
SC-073-Duplicate	Nov-06	Benzene	ug/kg	5.7	5	ND	
SC-073-Duplicate	Nov-06	n-Butylbenzene	ug/kg	5.7	5	ND	
SC-073-Duplicate	Nov-06	sec-Butylbenzene	ug/kg	5.7	5	ND	
SC-073-Duplicate	Nov-06	Carbon Disulfide	ug/kg	5.7	5	ND	
SC-073-Duplicate	Nov-06	Chlorobenzene	ug/kg	5.7	5	ND	
SC-073-Duplicate	Nov-06	Chloroform	ug/kg	5.7	5	ND	
SC-073-Duplicate	Nov-06	1,2-Dichloroethane	ug/kg	5.7	5	ND	
SC-073-Duplicate	Nov-06	1,4-Dioxane	ug/kg	5.7	500	ND	
SC-073-Duplicate	Nov-06	Ethylbenzene	ug/kg	5.7	5	ND	
SC-073-Duplicate	Nov-06	1,2-Dibromoethane (Ethylene Dibromide)	ug/kg	5.7	10	ND	
SC-073-Duplicate	Nov-06	4-Isopropyltoluene (p-Isopropyltoluene)	ug/kg	5.7	5	ND	
SC-073-Duplicate	Nov-06	2-Butanone (MEK)	ug/kg	5.7	20	ND	
SC-073-Duplicate	Nov-06	n-Propylbenzene	ug/kg	5.7	5	ND	
SC-073-Duplicate	Nov-06	Styrene	ug/kg	5.7	5	ND	
SC-073-Duplicate	Nov-06	Toluene	ug/kg	5.7	5	ND	
SC-073-Duplicate	Nov-06	1,3,5-Trimethylbenzene	ug/kg	5.7	5	ND	
SC-073-Duplicate	Nov-06	1,2,4-Trimethylbenzene	ug/kg	5.7	5	ND	
SC-073-Duplicate	Nov-06	Xylenes	ug/kg	5.7	5	ND	
SC-073-Duplicate	Nov-06	Acenaphthylene	ug/kg	37	330	ND	
SC-073-Duplicate	Nov-06	Anthracene	ug/kg	37	660	ND	
SC-073-Duplicate	Nov-06	Benzo(a)anthracene	ug/kg	37	660	ND	
SC-073-Duplicate	Nov-06	Benzo(b)fluoranthene	ug/kg	37	660	ND	
SC-073-Duplicate	Nov-06	Benzo(k)fluoranthene	ug/kg	37	660	ND	
SC-073-Duplicate	Nov-06	Benzo(g,h,i)perylene	ug/kg	37	330	ND	
SC-073-Duplicate	Nov-06	Benzo(a)pyrene	ug/kg	37	660	ND	
SC-073-Duplicate	Nov-06	Bis(2-ethylhexyl)phthalate	ug/kg	190	660	ND	
SC-073-Duplicate	Nov-06	Butyl benzyl phthalate	ug/kg	190	660	ND	
SC-073-Duplicate	Nov-06	Chrysene	ug/kg	37	660	ND	

Table I-8. Summary of Soil Analytical Data for Unsaturated Zone Monitoring – Years 1-10 (continued)

Sample ID	Date	Constituent	Units	Reporting Limit	Monitoring Limit	Result	Flag
SC-073-Duplicate	Nov-06	Dibenz(a,h)acridine	ug/kg	190	330	ND	
SC-073-Duplicate	Nov-06	Dibenz(a,h)anthracene	ug/kg	37	660	ND	
SC-073-Duplicate	Nov-06	Dichlorobenzenes	ug/kg	190	660	ND	
SC-073-Duplicate	Nov-06	Diethyl phthalate	ug/kg	190	660	ND	
SC-073-Duplicate	Nov-06	7,12-Dimethylbenz(a)anthracene	ug/kg	190	660	ND	
SC-073-Duplicate	Nov-06	Dimethyl phthalate	ug/kg	190	660	ND	
SC-073-Duplicate	Nov-06	Di-n-butyl phthalate	ug/kg	190	660	ND	
SC-073-Duplicate	Nov-06	Di-n-octyl phthalate	ug/kg	190	660	ND	
SC-073-Duplicate	Nov-06	Fluoranthene	ug/kg	37	660	ND	
SC-073-Duplicate	Nov-06	Fluorene	ug/kg	37	330	ND	
SC-073-Duplicate	Nov-06	Indene	ug/kg	190	330	ND	
SC-073-Duplicate	Nov-06	Indeno(1,2,3-cd)pyrene	ug/kg	37	330	ND	
SC-073-Duplicate	Nov-06	Methyl Chrysene (6-Methylchrysene)	ug/kg	74	330	ND	
SC-073-Duplicate	Nov-06	1-Methylnaphthalene	ug/kg	37	660	ND	
SC-073-Duplicate	Nov-06	2-Methylnaphthalene	ug/kg	190	330	ND	
SC-073-Duplicate	Nov-06	Naphthalene	ug/kg	37	660	ND	
SC-073-Duplicate	Nov-06	Phenanthrene	ug/kg	37	660	ND	
SC-073-Duplicate	Nov-06	Pyrene	ug/kg	37	660	ND	
SC-073-Duplicate	Nov-06	Pyridine	ug/kg	760	660	ND	
SC-073-Duplicate	Nov-06	Quinoline	ug/kg	370	330	ND	
SC-073-Duplicate	Nov-06	Benzenethiol	ug/kg	190	3300	ND	
SC-073-Duplicate	Nov-06	Cresols (o,m,&p)	ug/kg	190	660	ND	
SC-073-Duplicate	Nov-06	2,4-Dimethylphenol	ug/kg	370	660	ND	
SC-073-Duplicate	Nov-06	2,4-Dinitrophenol	ug/kg	760	3300	ND	
SC-073-Duplicate	Nov-06	4-Nitrophenol	ug/kg	760	3300	ND	
SC-073-Duplicate	Nov-06	Phenol	ug/kg	190	660	ND	
SC-073-Duplicate	Nov-06	Antimony	mg/kg	2.1	6.69	ND	
SC-073-Duplicate	Nov-06	Arsenic	mg/kg		55.5	7.9	
SC-073-Duplicate	Nov-06	Barium	mg/kg		1028	40	

Table I-8. Summary of Soil Analytical Data for Unsaturated Zone Monitoring – Years 1-10 (continued)

Sample ID	Date	Constituent	Units	Reporting Limit	Monitoring Limit	Result	Flag
SC-073-Duplicate	Nov-06	Beryllium	mg/kg		2.53	0.51	
SC-073-Duplicate	Nov-06	Cadmium	mg/kg		9.11	0.49	
SC-073-Duplicate	Nov-06	Chromium	mg/kg		368	15	
SC-073-Duplicate	Nov-06	Cobalt	mg/kg		60.1	9.2	
SC-073-Duplicate	Nov-06	Lead	mg/kg		504	11	
SC-073-Duplicate	Nov-06	Mercury	mg/kg	19	0.9	ND	
SC-073-Duplicate	Nov-06	Nickel	mg/kg		138	24	
SC-073-Duplicate	Nov-06	Selenium	mg/kg	210	0.56	ND	
SC-073-Duplicate	Nov-06	Vanadium	mg/kg		446	19	
SC-074	Nov-06	Acetone	ug/kg	5.7	20	6.4	
SC-074	Nov-06	Benzene	ug/kg	5.7	5	ND	
SC-074	Nov-06	n-Butylbenzene	ug/kg	5.7	5	ND	
SC-074	Nov-06	sec-Butylbenzene	ug/kg	5.7	5	ND	
SC-074	Nov-06	Carbon Disulfide	ug/kg	5.7	5	ND	
SC-074	Nov-06	Chlorobenzene	ug/kg	5.7	5	ND	
SC-074	Nov-06	Chloroform	ug/kg	5.7	5	ND	
SC-074	Nov-06	1,2-Dichloroethane	ug/kg	5.7	5	ND	
SC-074	Nov-06	1,4-Dioxane	ug/kg	5.7	500	ND	
SC-074	Nov-06	Ethylbenzene	ug/kg	5.7	5	ND	
SC-074	Nov-06	1,2-Dibromoethane (Ethylene Dibromide)	ug/kg	5.7	10	ND	
SC-074	Nov-06	4-Isopropyltoluene (p-Isopropyltoluene)	ug/kg	5.7	5	ND	
SC-074	Nov-06	2-Butanone (MEK)	ug/kg	5.7	20	ND	
SC-074	Nov-06	n-Propylbenzene	ug/kg	5.7	5	ND	
SC-074	Nov-06	Styrene	ug/kg	5.7	5	ND	
SC-074	Nov-06	Toluene	ug/kg	5.7	5	ND	
SC-074	Nov-06	1,3,5-Trimethylbenzene	ug/kg	5.7	5	ND	
SC-074	Nov-06	1,2,4-Trimethylbenzene	ug/kg	5.7	5	ND	
SC-074	Nov-06	Xylenes	ug/kg	5.7	5	ND	
SC-074	Nov-06	Acenaphthylene	ug/kg	37	330	ND	

Table I-8. Summary of Soil Analytical Data for Unsaturated Zone Monitoring – Years 1-10 (continued)

Sample ID	Date	Constituent	Units	Reporting Limit	Monitoring Limit	Result	Flag
SC-074	Nov-06	Anthracene	ug/kg	37	660	ND	
SC-074	Nov-06	Benzo(a)anthracene	ug/kg	37	660	ND	
SC-074	Nov-06	Benzo(b)fluoranthene	ug/kg	37	660	ND	
SC-074	Nov-06	Benzo(k)fluoranthene	ug/kg	37	660	ND	
SC-074	Nov-06	Benzo(g,h,i)perylene	ug/kg	37	330	ND	
SC-074	Nov-06	Benzo(a)pyrene	ug/kg	37	660	ND	
SC-074	Nov-06	Bis(2-ethylhexyl)phthalate	ug/kg		660	1000	
SC-074	Nov-06	Butyl benzyl phthalate	ug/kg	180	660	ND	
SC-074	Nov-06	Chrysene	ug/kg	37	660	ND	
SC-074	Nov-06	Dibenz(a,h)acridine	ug/kg	180	330	ND	
SC-074	Nov-06	Dibenz(a,h)anthracene	ug/kg	37	660	ND	
SC-074	Nov-06	Dichlorobenzenes	ug/kg	180	660	ND	
SC-074	Nov-06	Diethyl phthalate	ug/kg	180	660	ND	
SC-074	Nov-06	7,12-Dimethylbenz(a)anthracene	ug/kg	180	660	ND	
SC-074	Nov-06	Dimethyl phthalate	ug/kg	180	660	ND	
SC-074	Nov-06	Di-n-butyl phthalate	ug/kg	180	660	ND	
SC-074	Nov-06	Di-n-octyl phthalate	ug/kg	180	660	ND	
SC-074	Nov-06	Fluoranthene	ug/kg	37	660	ND	
SC-074	Nov-06	Fluorene	ug/kg	37	330	ND	
SC-074	Nov-06	Indene	ug/kg	180	330	ND	
SC-074	Nov-06	Indeno(1,2,3-cd)pyrene	ug/kg	37	330	ND	
SC-074	Nov-06	Methyl Chrysene (6-Methylchrysene)	ug/kg	74	330	ND	
SC-074	Nov-06	1-Methylnaphthalene	ug/kg	37	660	ND	
SC-074	Nov-06	2-Methylnaphthalene	ug/kg	180	330	ND	
SC-074	Nov-06	Naphthalene	ug/kg	37	660	ND	
SC-074	Nov-06	Phenanthrene	ug/kg	37	660	ND	
SC-074	Nov-06	Pyrene	ug/kg	37	660	ND	
SC-074	Nov-06	Pyridine	ug/kg	740	660	ND	
SC-074	Nov-06	Quinoline	ug/kg	370	330	ND	

Table I-8. Summary of Soil Analytical Data for Unsaturated Zone Monitoring – Years 1-10 (continued)

Sample ID	Date	Constituent	Units	Reporting Limit	Monitoring Limit	Result	Flag
SC-074	Nov-06	Benzenethiol	ug/kg	180	3300	ND	
SC-074	Nov-06	Cresols (o,m,&p)	ug/kg	180	660	ND	
SC-074	Nov-06	2,4-Dimethylphenol	ug/kg	370	660	ND	
SC-074	Nov-06	2,4-Dinitrophenol	ug/kg	740	3300	ND	
SC-074	Nov-06	4-Nitrophenol	ug/kg	740	3300	ND	
SC-074	Nov-06	Phenol	ug/kg	180	660	ND	
SC-074	Nov-06	Antimony	mg/kg	2.3	6.69	ND	
SC-074	Nov-06	Arsenic	mg/kg		55.5	8.2	
SC-074	Nov-06	Barium	mg/kg		1028	34.0	
SC-074	Nov-06	Beryllium	mg/kg	0.45	2.53	ND	
SC-074	Nov-06	Cadmium	mg/kg		9.11	0.37	
SC-074	Nov-06	Chromium	mg/kg		368	14.0	
SC-074	Nov-06	Cobalt	mg/kg		60.1	9.7	
SC-074	Nov-06	Lead	mg/kg		504	11.0	
SC-074	Nov-06	Mercury	mg/kg		0.9	20	
SC-074	Nov-06	Nickel	mg/kg		138	27.0	
SC-074	Nov-06	Selenium	mg/kg	220	0.56	ND	
SC-074	Nov-06	Vanadium	mg/kg		446	17.0	
SC-075	Nov-06	Acetone	ug/kg		20	6.8	
SC-075	Nov-06	Benzene	ug/kg	5.8	5	ND	
SC-075	Nov-06	n-Butylbenzene	ug/kg	5.8	5	ND	
SC-075	Nov-06	sec Butylbenzene	ug/kg	5.8	5	ND	
SC-075	Nov-06	Carbon Disulfide	ug/kg	5.8	5	ND	
SC-075	Nov-06	Chlorobenzene	ug/kg	5.8	5	ND	
SC-075	Nov-06	Chloroform	ug/kg	5.8	5	ND	
SC-075	Nov-06	1,2-Dichloroethane	ug/kg	5.8	5	ND	
SC-075	Nov-06	1,4-Dioxane	ug/kg	5.8	500	ND	
SC-075	Nov-06	Ethylbenzene	ug/kg	5.8	5	ND	
SC-075	Nov-06	1,2-Dibromoethane (Ethylene Dibromide)	ug/kg	5.8	10	ND	

Table I-8. Summary of Soil Analytical Data for Unsaturated Zone Monitoring – Years 1-10 (continued)

Sample ID	Date	Constituent	Units	Reporting Limit	Monitoring Limit	Result	Flag
SC-075	Nov-06	4-Isopropyltoluene (p-Isopropyltoluene)	ug/kg	5.8	5	ND	
SC-075	Nov-06	2-Butanone (MEK)	ug/kg	5.8	20	ND	
SC-075	Nov-06	n-Propylbenzene	ug/kg	5.8	5	ND	
SC-075	Nov-06	Styrene	ug/kg	5.8	5	ND	
SC-075	Nov-06	Toluene	ug/kg	5.8	5	ND	
SC-075	Nov-06	1,3,5-Trimethylbenzene	ug/kg	5.8	5	ND	
SC-075	Nov-06	1,2,4-Trimethylbenzene	ug/kg	5.8	5	ND	
SC-075	Nov-06	Xylenes	ug/kg	5.8	5	ND	
SC-075	Nov-06	Acenaphthylene	ug/kg	38	330	ND	
SC-075	Nov-06	Anthracene	ug/kg	38	660	ND	
SC-075	Nov-06	Benzo(a)anthracene	ug/kg	38	660	ND	
SC-075	Nov-06	Benzo(b)fluoranthene	ug/kg	38	660	ND	
SC-075	Nov-06	Benzo(k)fluoranthene	ug/kg	38	660	ND	
SC-075	Nov-06	Benzo(g,h,i)perylene	ug/kg	358	330	ND	
SC-075	Nov-06	Benzo(a)pyrene	ug/kg	38	660	ND	
SC-075	Nov-06	Bis(2-ethylhexyl)phthalate	ug/kg	190	660	ND	
SC-075	Nov-06	Butyl benzyl phthalate	ug/kg	190	660	ND	
SC-075	Nov-06	Chrysene	ug/kg	38	660	ND	
SC-075	Nov-06	Dibenz(a,h)acridine	ug/kg	190	330	ND	
SC-075	Nov-06	Dibenz(a,h)anthracene	ug/kg	38	660	ND	
SC-075	Nov-06	Dichlorobenzenes	ug/kg	190	660	ND	
SC-075	Nov-06	Diethyl phthalate	ug/kg	190	660	ND	
SC-075	Nov-06	7,12-Dimethylbenz(a)anthracene	ug/kg	190	660	ND	
SC-075	Nov-06	Dimethyl phthalate	ug/kg	190	660	ND	
SC-075	Nov-06	Di-n-butyl phthalate	ug/kg	190	660	ND	
SC-075	Nov-06	Di-n-octyl phthalate	ug/kg	190	660	ND	
SC-075	Nov-06	Fluoranthene	ug/kg	38	660	ND	
SC-075	Nov-06	Fluorene	ug/kg	38	330	ND	
SC-075	Nov-06	Indene	ug/kg	190	330	ND	

Table I-8. Summary of Soil Analytical Data for Unsaturated Zone Monitoring – Years 1-10 (continued)

Sample ID	Date	Constituent	Units	Reporting Limit	Monitoring Limit	Result	Flag
SC-075	Nov-06	Indeno(1,2,3-cd)pyrene	ug/kg	38	330	ND	
SC-075	Nov-06	Methyl Chrysene (6-Methylchrysene)	ug/kg	77	330	ND	
SC-075	Nov-06	1-Methylnaphthalene	ug/kg	38	660	ND	
SC-075	Nov-06	2-Methylnaphthalene	ug/kg	190	330	ND	
SC-075	Nov-06	Naphthalene	ug/kg	38	660	ND	
SC-075	Nov-06	Phenanthrene	ug/kg	38	660	ND	
SC-075	Nov-06	Pyrene	ug/kg	38	660	ND	
SC-075	Nov-06	Pyridine	ug/kg	770	660	ND	
SC-075	Nov-06	Quinoline	ug/kg	380	330	ND	
SC-075	Nov-06	Benzenethiol	ug/kg	190	3300	ND	
SC-075	Nov-06	Cresols (o,m,&p)	ug/kg	190	660	ND	
SC-075	Nov-06	2,4-Dimethylphenol	ug/kg	380	660	ND	
SC-075	Nov-06	2,4-Dinitrophenol	ug/kg	770	3300	ND	
SC-075	Nov-06	4-Nitrophenol	ug/kg	770	3300	ND	
SC-075	Nov-06	Phenol	ug/kg	190	660	ND	
SC-075	Nov-06	Antimony	mg/kg	2.2	6.69	ND	
SC-075	Nov-06	Arsenic	mg/kg		55.5	9.0	
SC-075	Nov-06	Barium	mg/kg		1028	24.0	
SC-075	Nov-06	Beryllium	mg/kg	0.43	2.53	ND	
SC-075	Nov-06	Cadmium	mg/kg		9.11	0.47	
SC-075	Nov-06	Chromium	mg/kg		368	11.0	
SC-075	Nov-06	Cobalt	mg/kg		60.1	8.5	
SC-075	Nov-06	Lead	mg/kg		504	11.0	
SC-075	Nov-06	Mercury	ug/kg	19	0.9	ND	
SC-075	Nov-06	Nickel	mg/kg		138	22.0	
SC-075	Nov-06	Selenium	ug/kg	220	0.56	ND	
SC-075	Nov-06	Vanadium	mg/kg		446	14.0	
SC-076	Nov-06	Acetone	ug/kg	5.8	20	ND	
SC-076	Nov-06	Benzene	ug/kg	5.8	5	ND	

Table I-8. Summary of Soil Analytical Data for Unsaturated Zone Monitoring – Years 1-10 (continued)

Sample ID	Date	Constituent	Units	Reporting Limit	Monitoring Limit	Result	Flag
SC-076	Nov-06	n-Butylbenzene	ug/kg	5.8	5	ND	
SC-076	Nov-06	sec-Butylbenzene	ug/kg	5.8	5	ND	
SC-076	Nov-06	Carbion Disulfide	ug/kg	5.8	5	ND	
SC-076	Nov-06	Chlorobenzene	ug/kg	5.8	5	ND	
SC-076	Nov-06	Chloroform	ug/kg	5.8	5	ND	
SC-076	Nov-06	1,2-Dichloroethane	ug/kg	5.8	5	ND	
SC-076	Nov-06	1,4-Dioxane	ug/kg	5.8	500	ND	
SC-076	Nov-06	Ethylbenzene	ug/kg	5.8	5	ND	
SC-076	Nov-06	1,2-Dibromoethane (Ethylene Dibromide)	ug/kg	5.8	10	ND	
SC-076	Nov-06	4-Isopropyltoluene (p-Isopropyltoluene)	ug/kg	5.8	5	ND	
SC-076	Nov-06	2-Butanone (MEK)	ug/kg	5.8	20	ND	
SC-076	Nov-06	n-Propylbenzene	ug/kg	5.8	5	ND	
SC-076	Nov-06	Styrene	ug/kg	5.8	5	ND	
SC-076	Nov-06	Toluene	ug/kg	5.8	5	ND	
SC-076	Nov-06	1,3,5-Trimethylbenzene	ug/kg	5.8	5	ND	
SC-076	Nov-06	1,2,4-Trimethylbenzene	ug/kg	5.8	5	ND	
SC-076	Nov-06	Xylenes	ug/kg	5.8	5	ND	
SC-076	Nov-06	Acenaphthylene	ug/kg	38	330	ND	
SC-076	Nov-06	Anthracene	ug/kg	38	660	ND	
SC-076	Nov-06	Benzo(a)anthracene	ug/kg	38	660	ND	
SC-076	Nov-06	Benzo(b)fluoranthene	ug/kg	38	660	ND	
SC-076	Nov-06	Benzo(k)fluoranthene	ug/kg	38	660	ND	
SC-076	Nov-06	Benzo(g,h,i)perylene	ug/kg	38	330	ND	
SC-076	Nov-06	Benzo(a)pyrene	ug/kg	38	660	ND	
SC-076	Nov-06	Bis(2-ethylhexyl)phthalate	ug/kg		660	1109	
SC-076	Nov-06	Butyl benzyl phthalate	ug/kg	190	660	ND	
SC-076	Nov-06	Chrysene	ug/kg	38	660	ND	
SC-076	Nov-06	Dibenz(a,h)acridine	ug/kg	190	330	ND	
SC-076	Nov-06	Dibenz(a,h)anthracene	ug/kg	38	660	ND	

Table I-8. Summary of Soil Analytical Data for Unsaturated Zone Monitoring – Years 1-10 (continued)

Sample ID	Date	Constituent	Units	Reporting Limit	Monitoring Limit	Result	Flag
SC-076	Nov-06	Dichlorobenzenes	ug/kg	190	660	ND	
SC-076	Nov-06	Diethyl phthalate	ug/kg	190	660	ND	
SC-076	Nov-06	7,12-Dimethylbenz(a)anthracene	ug/kg	190	660	ND	
SC-076	Nov-06	Dimethyl phthalate	ug/kg	190	660	ND	
SC-076	Nov-06	Di-n-butyl phthalate	ug/kg	190	660	ND	
SC-076	Nov-06	Di-n-octyl phthalate	ug/kg	190	660	ND	
SC-076	Nov-06	Fluoranthene	ug/kg	38	660	ND	
SC-076	Nov-06	Fluorene	ug/kg	38	330	ND	
SC-076	Nov-06	Indene	ug/kg	190	330	ND	
SC-076	Nov-06	Indeno(1,2,3-cd)pyrene	ug/kg	38	330	ND	
SC-076	Nov-06	Methyl Chrysene (6-Methylchrysene)	ug/kg	73	330	ND	
SC-076	Nov-06	1-Methylnaphthalene	ug/kg	38	660	ND	
SC-076	Nov-06	2-Methylnaphthalene	ug/kg	190	330	ND	
SC-076	Nov-06	Naphthalene	ug/kg	38	660	ND	
SC-076	Nov-06	Phenanthrene	ug/kg	38	660	ND	
SC-076	Nov-06	Pyrene	ug/kg	38	660	ND	
SC-076	Nov-06	Pyridine	ug/kg	730	660	ND	
SC-076	Nov-06	Quinoline	ug/kg	360	330	ND	
SC-076	Nov-06	Benzenethiol	ug/kg	180	3300	ND	
SC-076	Nov-06	Cresols (o,m,&p)	ug/kg	180	660	ND	
SC-076	Nov-06	2,4-Dimethylphenol	ug/kg	360	660	ND	
SC-076	Nov-06	2,4-Dinitrophenol	ug/kg	730	3300	ND	
SC-076	Nov-06	4-Nitrophenol	ug/kg	730	3300	ND	
SC-076	Nov-06	Phenol	ug/kg	180	660	ND	
SC-076	Nov-06	Antimony	mg/kg	2.1	6.69	ND	
SC-076	Nov-06	Arsenic	mg/kg		55.5	5.3	
SC-076	Nov-06	Barium	mg/kg		1028	9.0	
SC-076	Nov-06	Beryllium	mg/kg	0.42	2.53	ND	
SC-076	Nov-06	Cadmium	mg/kg		9.11	0.37	

Table I-8. Summary of Soil Analytical Data for Unsaturated Zone Monitoring – Years 1-10 (continued)

Sample ID	Date	Constituent	Units	Reporting Limit	Monitoring Limit	Result	Flag
SC-076	Nov-06	Chromium	mg/kg		368	5.5	
SC-076	Nov-06	Cobalt	mg/kg		60.1	3.6	
SC-076	Nov-06	Lead	mg/kg		504	5.4	
SC-076	Nov-06	Mercury	mg/kg		0.9	26	
SC-076	Nov-06	Nickel	mg/kg		138	9.5	
SC-076	Nov-06	Selenium	mg/kg	210	0.56	ND	
SC-076	Nov-06	Vanadium	mg/kg		446	8.7	
SC-077	Nov-06	Acetone	ug/kg	5.9	20	12	
SC-077	Nov-06	Benzene	ug/kg	5.9	5	ND	
SC-077	Nov-06	n-Butylbenzene	ug/kg	5.9	5	ND	
SC-077	Nov-06	sec-Butylbenzene	ug/kg	5.9	5	ND	
SC-077	Nov-06	Carbon Disulfide	ug/kg	5.9	5	ND	
SC-077	Nov-06	Chlorobenzene	ug/kg	5.9	5	ND	
SC-077	Nov-06	Chloroform	ug/kg	5.9	5	ND	
SC-077	Nov-06	1,2-Dichloroethane	ug/kg	5.9	5	ND	
SC-077	Nov-06	1,4-Dioxane	ug/kg	5.9	500	ND	
SC-077	Nov-06	Ethylbenzene	ug/kg	5.9	5	ND	
SC-077	Nov-06	1,2-Dibromoethane (Ethylene Dibromide)	ug/kg	5.9	10	ND	
SC-077	Nov-06	4-Isopropyltoluene (p-Isopropyltoluene)	ug/kg	5.9	5	ND	
SC-077	Nov-06	2-Butanone (MEK)	ug/kg	5.9	20	ND	
SC-077	Nov-06	n-Propylbenzene	ug/kg	5.9	5	ND	
SC-077	Nov-06	Styrene	ug/kg	5.9	5	ND	
SC-077	Nov-06	Toluene	ug/kg	5.9	5	ND	
SC-077	Nov-06	1,3,5-Trimethylbenzene	ug/kg	5.9	5	ND	
SC-077	Nov-06	1,2,4-Trimethylbenzene	ug/kg	5.9	5	ND	
SC-077	Nov-06	Xylenes	ug/kg	5.9	5	ND	
SC-077	Nov-06	Acenaphthylene	ug/kg	39	330	ND	
SC-077	Nov-06	Anthracene	ug/kg	39	660	ND	
SC-077	Nov-06	Benzo(a)anthracene	ug/kg	39	660	ND	

Table I-8. Summary of Soil Analytical Data for Unsaturated Zone Monitoring – Years 1-10 (continued)

Sample ID	Date	Constituent	Units	Reporting Limit	Monitoring Limit	Result	Flag
SC-077	Nov-06	Benzo(b)fluoranthene	ug/kg	39	660	ND	
SC-077	Nov-06	Benzo(k)fluoranthene	ug/kg	39	660	ND	
SC-077	Nov-06	Benzo(g,h,i)perylene	ug/kg	39	330	ND	
SC-077	Nov-06	Benzo(a)pyrene	ug/kg	39	660	ND	
SC-077	Nov-06	Bis(2-ethylhexyl)phthalate	ug/kg	200	660	ND	
SC-077	Nov-06	Butyl benzyl phthalate	ug/kg	200	660	ND	
SC-077	Nov-06	Chrysene	ug/kg	39	660	ND	
SC-077	Nov-06	Dibenz(a,h)acridine	ug/kg	200	330	ND	
SC-077	Nov-06	Dibenz(a,h)anthracene	ug/kg	39	660	ND	
SC-077	Nov-06	Dichlorobenzenes	ug/kg	200	660	ND	
SC-077	Nov-06	Diethyl phthalate	ug/kg	200	660	ND	
SC-077	Nov-06	7,12-Dimethylbenz(a)anthracene	ug/kg	200	660	ND	
SC-077	Nov-06	Dimethyl phthalate	ug/kg	200	660	ND	
SC-077	Nov-06	Di-n-butyl phthalate	ug/kg	200	660	ND	
SC-077	Nov-06	Di-n-octyl phthalate	ug/kg	200	660	ND	
SC-077	Nov-06	Fluoranthene	ug/kg	39	660	ND	
SC-077	Nov-06	Fluorene	ug/kg	39	330	ND	
SC-077	Nov-06	Indene	ug/kg	200	330	ND	
SC-077	Nov-06	Indeno(1,2,3-cd)pyrene	ug/kg	39	330	ND	
SC-077	Nov-06	Methyl Chrysene (6-Methylchrysene)	ug/kg	78	330	ND	
SC-077	Nov-06	1-Methylnaphthalene	ug/kg	39	660	ND	
SC-077	Nov-06	2-Methylnaphthalene	ug/kg	200	330	ND	
SC-077	Nov-06	Naphthalene	ug/kg	39	660	ND	
SC-077	Nov-06	Phenanthrene	ug/kg	39	660	ND	
SC-077	Nov-06	Pyrene	ug/kg	0.9	660	ND	
SC-077	Nov-06	Pyridine	ug/kg	780	660	ND	
SC-077	Nov-06	Quinoline	ug/kg	390	330	ND	
SC-077	Nov-06	Benzenethiol	ug/kg	200	3300	ND	
SC-077	Nov-06	Cresols (o,m,&p)	ug/kg	200	660	ND	

Table I-8. Summary of Soil Analytical Data for Unsaturated Zone Monitoring – Years 1-10 (continued)

Sample ID	Date	Constituent	Units	Reporting Limit	Monitoring Limit	Result	Flag
SC-077	Nov-06	2,4-Dimethylphenol	ug/kg	390	660	ND	
SC-077	Nov-06	2,4-Dinitrophenol	ug/kg	780	3300	ND	
SC-077	Nov-06	4-Nitrophenol	ug/kg	780	3300	ND	
SC-077	Nov-06	Phenol	ug/kg	200	660	ND	
SC-077	Nov-06	Antimony	mg/kg	2.3	6.69	ND	
SC-077	Nov-06	Arsenic	mg/kg		55.5	9.7	
SC-077	Nov-06	Barium	mg/kg		1028	47.0	
SC-077	Nov-06	Beryllium	mg/kg		2.53	0.53	
SC-077	Nov-06	Cadmium	mg/kg		9.11	0.45	
SC-077	Nov-06	Chromium	mg/kg		368	17.0	
SC-077	Nov-06	Cobalt	mg/kg		60.1	11	
SC-077	Nov-06	Lead	mg/kg		504	14.0	
SC-077	Nov-06	Mercury	mg/kg		0.9	25	
SC-077	Nov-06	Nickel	mg/kg		138	29.0	
SC-077	Nov-06	Selenium	mg/kg	220	0.56	ND	
SC-077	Nov-06	Vanadium	mg/kg		446	20.0	
SC-078	Nov-06	Acetone	ug/kg		20	14.0	
SC-078	Nov-06	Benzene	ug/kg	5.8	5	ND	
SC-078	Nov-06	n-Butylbenzene	ug/kg	5.8	5	ND	
SC-078	Nov-06	sec-Butylbenzene	ug/kg	5.8	5	ND	
SC-078	Nov-06	Carbon Disulfide	ug/kg	5.8	5	ND	
SC-078	Nov-06	Chlorobenzene	ug/kg	5.8	5	ND	
SC-078	Nov-06	Chloroform	ug/kg	5.8	5	ND	
SC-078	Nov-06	1,2-Dichloroethane	ug/kg	5.8	5	ND	
SC-078	Nov-06	1,4-Dioxane	ug/kg	5.8	500	ND	
SC-078	Nov-06	Ethylbenzene	ug/kg	5.8	5	ND	
SC-078	Nov-06	1,2-Dibromoethane (Ethylene Dibromide)	ug/kg	5.8	10	ND	
SC-078	Nov-06	4-Isopropyltoluene (p-Isopropyltoluene)	ug/kg	5.8	5	ND	
SC-078	Nov-06	2-Butanone (MEK)	ug/kg	5.8	20	ND	

Table I-8. Summary of Soil Analytical Data for Unsaturated Zone Monitoring – Years 1-10 (continued)

Sample ID	Date	Constituent	Units	Reporting Limit	Monitoring Limit	Result	Flag
SC-078	Nov-06	n-Propylbenzene	ug/kg	5.8	5	ND	
SC-078	Nov-06	Styrene	ug/kg	5.8	5	ND	
SC-078	Nov-06	Toluene	ug/kg	5.8	5	ND	
SC-078	Nov-06	1,3,5-Trimethylbenzene	ug/kg	5.8	5	ND	
SC-078	Nov-06	1,2,4-Trimethylbenzene	ug/kg	5.8	5	ND	
SC-078	Nov-06	Xylenes	ug/kg	5.8	5	ND	
SC-078	Nov-06	Acenaphthylene	ug/kg	38	330	ND	
SC-078	Nov-06	Anthracene	ug/kg	38	660	ND	
SC-078	Nov-06	Benzo(a)anthracene	ug/kg	190	660	ND	
SC-078	Nov-06	Benzo(b)fluoranthene	ug/kg	38	660	ND	
SC-078	Nov-06	Benzo(k)fluoranthene	ug/kg	38	660	ND	
SC-078	Nov-06	Benzo(g,h,i)perylene	ug/kg	38	330	ND	
SC-078	Nov-06	Benzo(a)pyrene	ug/kg	38	660	ND	
SC-078	Nov-06	Bis(2-ethylhexyl)phthalate	ug/kg		660	210	
SC-078	Nov-06	Butyl benzyl phthalate	ug/kg	190	660	ND	
SC-078	Nov-06	Chrysene	ug/kg	38	660	ND	
SC-078	Nov-06	Dibenz(a,h)acridine	ug/kg	190	330	ND	
SC-078	Nov-06	Dibenz(a,h)anthracene	ug/kg	38	660	ND	
SC-078	Nov-06	Dichlorobenzenes	ug/kg	190	660	ND	
SC-078	Nov-06	Diethyl phthalate	ug/kg	190	660	ND	
SC-078	Nov-06	7,12-Dimethylbenz(a)anthracene	ug/kg	190	660	ND	
SC-078	Nov-06	Dimethyl phthalate	ug/kg	190	660	ND	
SC-078	Nov-06	Di-n-butyl phthalate	ug/kg	190	660	ND	
SC-078	Nov-06	Di-n-octyl phthalate	ug/kg	190	660	ND	
SC-078	Nov-06	Fluoranthene	ug/kg	38	660	ND	
SC-078	Nov-06	Fluorene	ug/kg	38	330	ND	
SC-078	Nov-06	Indene	ug/kg	190	330	ND	
SC-078	Nov-06	Indeno(1,2,3-cd)pyrene	ug/kg	38	330	ND	
SC-078	Nov-06	Methyl Chrysene (6-Methylchrysene)	ug/kg	78	330	ND	

Table I-8. Summary of Soil Analytical Data for Unsaturated Zone Monitoring – Years 1-10 (continued)

Sample ID	Date	Constituent	Units	Reporting Limit	Monitoring Limit	Result	Flag
SC-078	Nov-06	1-Methylnaphthalene	ug/kg	38	660	ND	
SC-078	Nov-06	2-Methylnaphthalene	ug/kg	190	330	ND	
SC-078	Nov-06	Naphthalene	ug/kg	38	660	ND	
SC-078	Nov-06	Phenanthrene	ug/kg	38	660	ND	
SC-078	Nov-06	Pyrene	ug/kg	38	660	ND	
SC-078	Nov-06	Pyridine	ug/kg	780	660	ND	
SC-078	Nov-06	Quinoline	ug/kg	380	330	ND	
SC-078	Nov-06	Benzenethiol	ug/kg	190	3300	ND	
SC-078	Nov-06	Cresols (o,m,&p)	ug/kg	190	660	ND	
SC-078	Nov-06	2,4-Dimethylphenol	ug/kg	380	660	ND	
SC-078	Nov-06	2,4-Dinitrophenol	ug/kg	780	3300	ND	
SC-078	Nov-06	4-Nitrophenol	ug/kg	780	3300	ND	
SC-078	Nov-06	Phenol	ug/kg	190	660	ND	
SC-078	Nov-06	Antimony	mg/kg	2.2	6.69	ND	
SC-078	Nov-06	Arsenic	mg/kg		55.5	8.1	
SC-078	Nov-06	Barium	mg/kg		1028	43.0	
SC-078	Nov-06	Beryllium	mg/kg		2.53	0.52	
SC-078	Nov-06	Cadmium	mg/kg		9.11	0.36	
SC-078	Nov-06	Chromium	mg/kg		368	17.0	
SC-078	Nov-06	Cobalt	mg/kg		60.1	10	
SC-078	Nov-06	Lead	mg/kg		504	11.0	
SC-078	Nov-06	Mercury	mg/kg		0.9	20	
SC-078	Nov-06	Nickel	mg/kg		138	27.0	
SC-078	Nov-06	Selenium	mg/kg	220	0.56	ND	
SC-078	Nov-06	Vanadium	mg/kg		446	21.0	
SC-079	Nov-06	Acetone	ug/kg		20	11.0	
SC-079	Nov-06	Benzene	ug/kg	6.0	5	ND	
SC-079	Nov-06	n-Butylbenzene	ug/kg	6.0	5	ND	
SC-079	Nov-06	sec-Butylbenzene	ug/kg	6.0	5	ND	

Table I-8. Summary of Soil Analytical Data for Unsaturated Zone Monitoring – Years 1-10 (continued)

Sample ID	Date	Constituent	Units	Reporting Limit	Monitoring Limit	Result	Flag
SC-079	Nov-06	Carbon Disulfide	ug/kg	6.0	5	ND	
SC-079	Nov-06	Chlorobenzene	ug/kg	6.0	5	ND	
SC-079	Nov-06	Chloroform	ug/kg	6.0	5	ND	
SC-079	Nov-06	1,2-Dichloroethane	ug/kg	6.0	5	ND	
SC-079	Nov-06	1,4-Dioxane	ug/kg	6.0	500	ND	
SC-079	Nov-06	Ethylbenzene	ug/kg	6.0	5	ND	
SC-079	Nov-06	1,2-Dibromoethane (Ethylene Dibromide)	ug/kg	6.0	10	ND	
SC-079	Nov-06	4-Isopropyltoluene (p-Isopropyltoluene)	ug/kg	6.0	5	ND	
SC-079	Nov-06	2-Butanone (MEK)	ug/kg	6.0	20	ND	
SC-079	Nov-06	n-Propylbenzene	ug/kg	6.0	5	ND	
SC-079	Nov-06	Styrene	ug/kg	6.0	5	ND	
SC-079	Nov-06	Toluene	ug/kg	6.0	5	ND	
SC-079	Nov-06	1,3,5-Trimethylbenzene	ug/kg	6.0	5	ND	
SC-079	Nov-06	1,2,4-Trimethylbenzene	ug/kg	6.0	5	ND	
SC-079	Nov-06	Xylenes	ug/kg	6.0	5	ND	
SC-079	Nov-06	Acenaphthylene	ug/kg	40	330	ND	
SC-079	Nov-06	Anthracene	ug/kg	40	660	ND	
SC-079	Nov-06	Benzo(a)anthracene	ug/kg	200	660	ND	
SC-079	Nov-06	Benzo(b)fluoranthene	ug/kg	40	660	ND	
SC-079	Nov-06	Benzo(k)fluoranthene	ug/kg	40	660	ND	
SC-079	Nov-06	Benzo(g,h,i)perylene	ug/kg	40	330	ND	
SC-079	Nov-06	Benzo(a)pyrene	ug/kg	40	660	ND	
SC-079	Nov-06	Bis(2-ethylhexyl)phthalate	ug/kg	660	660	1800	
SC-079	Nov-06	Butyl benzyl phthalate	ug/kg	200	660	ND	
SC-079	Nov-06	Chrysene	ug/kg	40	660	ND	
SC-079	Nov-06	Dibenz(a,h)acridine	ug/kg	200	330	ND	
SC-079	Nov-06	Dibenz(a,h)anthracene	ug/kg	40	660	ND	
SC-079	Nov-06	Dichlorobenzenes	ug/kg	200	660	ND	
SC-079	Nov-06	Diethyl phthalate	ug/kg	200	660	ND	

Table I-8. Summary of Soil Analytical Data for Unsaturated Zone Monitoring – Years 1-10 (continued)

Sample ID	Date	Constituent	Units	Reporting Limit	Monitoring Limit	Result	Flag
SC-079	Nov-06	7,12-Dimethylbenz(a)anthracene	ug/kg	200	660	ND	
SC-079	Nov-06	Dimethyl phthalate	ug/kg	200	660	ND	
SC-079	Nov-06	Di-n-butyl phthalate	ug/kg	200	660	ND	
SC-079	Nov-06	Di-n-octyl phthalate	ug/kg	200	660	ND	
SC-079	Nov-06	Fluoranthene	ug/kg	40	660	ND	
SC-079	Nov-06	Fluorene	ug/kg	40	330	ND	
SC-079	Nov-06	Indene	ug/kg	200	330	ND	
SC-079	Nov-06	Indeno(1,2,3-cd)pyrene	ug/kg	40	330	ND	
SC-079	Nov-06	Methyl Chrysene (6-Methylchrysene)	ug/kg	76	330	ND	
SC-079	Nov-06	1-Methylnaphthalene	ug/kg	40	660	ND	
SC-079	Nov-06	2-Methylnaphthalene	ug/kg	200	330	ND	
SC-079	Nov-06	Naphthalene	ug/kg	40	660	ND	
SC-079	Nov-06	Phenanthrene	ug/kg	40	660	ND	
SC-079	Nov-06	Pyrene	ug/kg	40	660	ND	
SC-079	Nov-06	Pyridine	ug/kg	800	660	ND	
SC-079	Nov-06	Quinoline	ug/kg	400	330	ND	
SC-079	Nov-06	Benzenethiol	ug/kg	200	3300	ND	
SC-079	Nov-06	Cresols (o,m,&p)	ug/kg	200	660	ND	
SC-079	Nov-06	2,4-Dimethylphenol	ug/kg	400	660	ND	
SC-079	Nov-06	2,4-Dinitrophenol	ug/kg	800	3300	ND	
SC-079	Nov-06	4-Nitrophenol	ug/kg	800	3300	ND	
SC-079	Nov-06	Phenol	ug/kg	200	660	ND	
SC-079	Nov-06	Antimony	mg/kg	2.2	6.69	ND	
SC-079	Nov-06	Arsenic	mg/kg		55.5	5.5	
SC-079	Nov-06	Barium	mg/kg		1028	41.0	
SC-079	Nov-06	Beryllium	mg/kg		2.53	0.6	
SC-079	Nov-06	Cadmium	mg/kg		9.11	0.37	
SC-079	Nov-06	Chromium	mg/kg		368	19.0	
SC-079	Nov-06	Cobalt	mg/kg		60.1	8.1	

Table I-8. Summary of Soil Analytical Data for Unsaturated Zone Monitoring – Years 1-10 (continued)

Sample ID	Date	Constituent	Units	Reporting Limit	Monitoring Limit	Result	Flag
SC-079	Nov-06	Lead	mg/kg		504	11.0	
SC-079	Nov-06	Mercury	mg/kg	20	0.9	ND	
SC-079	Nov-06	Nickel	mg/kg		138	23.0	
SC-079	Nov-06	Selenium	mg/kg	220	0.56	ND	
SC-079	Nov-06	Vanadium	mg/kg		446	21.0	
SC-080	Nov-06	Acetone	ug/kg		20	11.0	
SC-080	Nov-06	Benzene	ug/kg	6.0	5	ND	
SC-080	Nov-06	n-Butylbenzene	ug/kg	6.0	5	ND	
SC-080	Nov-06	sec-Butylbenzene	ug/kg	6.0	5	ND	
SC-080	Nov-06	Carbon Disulfide	ug/kg	6.0	5	ND	
SC-080	Nov-06	Chlorobenzene	ug/kg	6.0	5	ND	
SC-080	Nov-06	Chloroform	ug/kg	6.0	5	ND	
SC-080	Nov-06	1,2-Dichloroethane	ug/kg	6.0	5	ND	
SC-080	Nov-06	1,4-Dioxane	ug/kg	6.0	500	ND	
SC-080	Nov-06	Ethylbenzene	ug/kg	6.0	5	ND	
SC-080	Nov-06	1,2-Dibromoethane (Ethylene Dibromide)	ug/kg	6.0	10	ND	
SC-080	Nov-06	4-Isopropyltoluene (p-Isopropyltoluene)	ug/kg	6.0	5	ND	
SC-080	Nov-06	2-Butanone (MEK)	ug/kg	6.0	20	ND	
SC-080	Nov-06	n-Propylbenzene	ug/kg	6.0	5	ND	
SC-080	Nov-06	Styrene	ug/kg	6.0	5	ND	
SC-080	Nov-06	Toluene	ug/kg	6.0	5	ND	
SC-080	Nov-06	1,3,5-Trimethylbenzene	ug/kg	6.0	5	ND	
SC-080	Nov-06	1,2,4-Trimethylbenzene	ug/kg	6.0	5	ND	
SC-080	Nov-06	Xylenes	ug/kg	6.0	5	ND	
SC-080	Nov-06	Acenaphthylene	ug/kg	38	330	ND	
SC-080	Nov-06	Anthracene	ug/kg	38	660	ND	
SC-080	Nov-06	Benzo(a)anthracene	ug/kg	190	660	ND	
SC-080	Nov-06	Benzo(b)fluoranthene	ug/kg	38	660	ND	
SC-080	Nov-06	Benzo(k)fluoranthene	ug/kg	38	660	ND	

Table I-8. Summary of Soil Analytical Data for Unsaturated Zone Monitoring – Years 1-10 (continued)

Sample ID	Date	Constituent	Units	Reporting Limit	Monitoring Limit	Result	Flag
SC-080	Nov-06	Benzo(g,h,i)perylene	ug/kg	38	330	ND	
SC-080	Nov-06	Benzo(a)pyrene	ug/kg	38	660	ND	
SC-080	Nov-06	Bis(2-ethylhexyl)phthalate	ug/kg		660	2500	
SC-080	Nov-06	Butyl benzyl phthalate	ug/kg	190	660	ND	
SC-080	Nov-06	Chrysene	ug/kg	38	660	ND	
SC-080	Nov-06	Dibenz(a,h)acridine	ug/kg	190	330	ND	
SC-080	Nov-06	Dibenz(a,h)anthracene	ug/kg	38	660	ND	
SC-080	Nov-06	Dichlorobenzenes	ug/kg	190	660	ND	
SC-080	Nov-06	Diethyl phthalate	ug/kg	190	660	ND	
SC-080	Nov-06	7,12-Dimethylbenz(a)anthracene	ug/kg	190	660	ND	
SC-080	Nov-06	Dimethyl phthalate	ug/kg	190	660	ND	
SC-080	Nov-06	Di-n-butyl phthalate	ug/kg	190	660	ND	
SC-080	Nov-06	Di-n-octyl phthalate	ug/kg	190	660	ND	
SC-080	Nov-06	Fluoranthene	ug/kg	38	660	ND	
SC-080	Nov-06	Fluorene	ug/kg	38	330	ND	
SC-080	Nov-06	Indene	ug/kg	190	330	ND	
SC-080	Nov-06	Indeno(1,2,3-cd)pyrene	ug/kg	38	330	ND	
SC-080	Nov-06	Methyl Chrysene (6-Methylchrysene)	ug/kg	76	330	ND	
SC-080	Nov-06	1-Methylnaphthalene	ug/kg	38	660	ND	
SC-080	Nov-06	2-Methylnaphthalene	ug/kg	190	330	ND	
SC-080	Nov-06	Naphtalene	ug/kg	38	660	ND	
SC-080	Nov-06	Phenanthrene	ug/kg	38	660	ND	
SC-080	Nov-06	Pyrene	ug/kg	38	660	ND	
SC-080	Nov-06	Pyridine	ug/kg	780	660	ND	
SC-080	Nov-06	Quinoline	ug/kg	380	330	ND	
SC-080	Nov-06	Benzenethiol	ug/kg	190	3300	ND	
SC-080	Nov-06	Cresols (o,m,&p)	ug/kg	190	660	ND	
SC-080	Nov-06	2,4-Dimethylphenol	ug/kg	380	660	ND	
SC-080	Nov-06	2,4-Dinitrophenol	ug/kg	780	3300	ND	

Table I-8. Summary of Soil Analytical Data for Unsaturated Zone Monitoring – Years 1-10 (continued)

Sample ID	Date	Constituent	Units	Reporting Limit	Monitoring Limit	Result	Flag
SC-080	Nov-06	4-Nitrophenol	ug/kg	780	3300	ND	
SC-080	Nov-06	Phenol	ug/kg	190	660	ND	
SC-080	Nov-06	Antimony	mg/kg	2.3	6.69	ND	
SC-080	Nov-06	Arsenic	mg/kg		55.5	9.1	
SC-080	Nov-06	Barium	mg/kg		1028	42.0	
SC-080	Nov-06	Beryllium	mg/kg		2.53	0.56	
SC-080	Nov-06	Cadmium	mg/kg		9.11	0.39	
SC-080	Nov-06	Chromium	mg/kg		368	22.0	
SC-080	Nov-06	Cobalt	mg/kg		60.1	8.4	
SC-080	Nov-06	Lead	mg/kg		504	12.0	
SC-080	Nov-06	Mercury	mg/kg		0.9	25	
SC-080	Nov-06	Nickel	mg/kg		138	26.0	
SC-080	Nov-06	Selenium	mg/kg	230	0.56	ND	
SC-080	Nov-06	Vanadium	mg/kg		446	22.0	

Notes:

Data for SC-001 through SC-008 was previously submitted to the Illinois EPA under separate cover.

= Lab Reporting Limit is higher than the RCRA-Permitted Monitoring Limit and there is no detected concentration

= Result is higher than the RCRA-Permitted Monitoring Limit

= Estimated result. Result is less than the Reporting Limit

= Not detected

ug/mg = micrograms per kilogram

mg/kg = milligram per kilogram

Table I-9. Closure Cost Estimate

Item	Quantity	Unit	Unit Cost	Total Cost
COVER CONSTRUCTION				
Mobilization/Demobilization	1	Lump sum	\$8,500.00	\$8,500
Tilling/Ripping, Fertilizer	13.5	Per Acre	\$3,257.79	\$43,980
Grade	72,600	Square Yard	\$0.27	\$19,602
Seed and Mulch	72,600	Square Yard	\$0.84	\$60,984
Water	1	Lump sum	\$8,500.00	\$8,500
Equipment/Personnel Decontamination	1	Lump sum	\$1,628.89	\$1,629
Plant/Nutrient Testing (Greenhouse Study)	1	Lump sum	\$8,500.00	\$8,500
Total Vegetative Cap Construction Cost				\$151,695
RELATED COVER CONSTRUCTION COSTS				
Contingencies (20% of Construction)	1	Lump sum	\$26,543.82	\$26,544
Hazardous Site Premium (15%)	1	Lump sum	\$19,907.86	\$19,908
Miscellaneous Construction Expenses ^a (18.1%)	1	Lump sum	\$24,022.16	\$24,022
Health and Safety (5%)	1	Lump sum	\$6,635.95	\$6,636
Construction Management (10%)	1	Lump sum	\$13,271.91	\$13,272
Engineering (10%)	1	Lump sum	\$13,271.91	\$13,272
Closure Report	1	Lump sum	\$24,433.42	\$24,433
Permitting	1	Lump sum	\$48,866.84	\$48,867
Total Vegetative Cap Related Costs				\$176,954
ONE-TIME COSTS				
Abandoning Lysimeters	11	Each	\$1,628.89	\$17,918
Total One-Time Costs				\$17,918
Total Vegetative Cap Costs (2006)				\$346,567

^a Includes: Bonding and Insurance (2.5%), Small Tools (2%), and Home Office Expense (13.6%)

Prices are in 2006 dollars and will have to be updated annually to reflect inflation

Table I-10. Post-Closure Care Cost Estimate

Item	Quantity	Unit	Unit Cost	Total Cost	Events Per Year	Total Cost Annually
GROUNDWATER MONITORING ^a						
Sample Personnel Cost	40	Hour	\$105.88	\$4,235.20	2	\$8,470
Sample Preservation Cost (per well)	8	Each	\$48.87	\$390.96	2	\$782
Sample Containers	1	LS	\$97.73	\$97.73	2	\$195
Over-night Shipping	1	LS	\$456.09	\$456.09	2	\$912
Detection Monitoring Parameters	8	Each	\$1,466.01	\$11,728.08	2	\$23,456
Groundwater Contamination Indicators	8	Each	\$146.60	\$1,172.80	2	\$2,346
Annual Cost						\$36,161
SOIL-CORE MONITORING ^b						
Engineer/Scientist (2)	30	Hour	\$105.88	\$3,176.40	1	\$3,176
Drilling Rig and Crew	10	Hour	\$276.91	\$2,769.10	1	\$2,769
Drill Rig Mobilization	1	LS	\$488.67	\$488.67	1	\$489
Sample Bottles	1	LS	\$97.73	\$97.73	1	\$98
Bentonite (2 bag/hole)	16	Bag	\$20.61	\$329.76	1	\$330
Overnight Shipping	1	LS	\$228.05	\$228.05	1	\$228
Analysis Cost	16	Each	\$1,466.01	\$23,456.16	1	\$23,456
Annual Cost						\$30,546
RELATED MONITORING COSTS						
Per Diem (2)	8	Day	\$48.87	\$390.96	2	\$782
Truck Rental	4	Day	\$114.02	\$456.08	2	\$912
Data Validation	60	Hour	\$138.46	\$8,307.60	2	\$16,615
Data Management	10	Hour	\$138.46	\$1,384.60	2	\$2,769
Reporting	1	LS	\$13,031.16	\$13,031.16	1	\$13,031
Annual Cost						\$34,109
MAINTENANCE						
Cover Inspection	8	Hour	\$81.44	\$651.52	12	\$7,818
Road Maintenance	1	LS	\$8,144.47	\$8,144.47	1	\$8,144
Fence Maintenance	1	LS	\$8,144.47	\$8,144.47	1	\$8,144
Cover Maintenance (mowing, seeding, fertilizing)	1	LS	\$24,433.42	\$24,433.42	1	\$24,433
Well Maintenance	1	LS	\$8,144.47	\$8,144.47	1	\$8,144
Annual Cost						\$56,683
Total Annual Post-Closure Costs						\$157,499
Cost in Present 2006 Dollars (Net Present Value): 30 years at 5% above inflation						\$2,421,146

^a There are 6 deep GW monitoring wells and 18 piezometers associated with the LTF. Samples will be collected semi-annually from each of the 6 wells + MSDS and DUP. Piezometers will be used to determine groundwater elevations in the uppermost aquifer

^b Eight soil-core locations at two depths (randomly selected) will be sampled annually. The soil samples will be analyzed for Skinner-list parameters.

LS=Lump sum

**RENEWAL PART B PERMIT APPLICATION
VOLUME 2, SECTION I**

**Remove Appendix Table of Contents
and replace with attached Appendix Table of Contents and Appendix I.1.**

APPENDICES FOR CLOSURE AND POST-CLOSURE REQUIREMENTS

Appendices

- I.1 CAMU Permit Modification Request
- I.1.5 Soil-Core Sampling Standard Operating Procedures
- I.1.6-1 Unsaturated Zone Monitoring Plan and Addendum
- I.1.6-2 Groundwater Monitoring Plan and Addendum
- I.2.2 Facility Inspection Form
- I.2.2.6 Repair Log
- I.6 Financial Assurance Documentation

Claimed Exempt in the Public Record Version

- I.6-A Version of Section I Available for Public Review

APPENDIX I.1—CAMU PERMIT MODIFICATION REQUEST

APPENDIX I.1 — CAMU PERMIT MODIFICATION REQUEST

Appendix I.1 can be found in the binder labeled
Appendix I.1 – CAMU Permit Modification Request

**RENEWAL PART B PERMIT APPLICATION
VOLUME 2, SECTION I**

Remove pages behind Appendix I.6-Financial Assurance Documentation and replace with attached Appendix I.6-Financial Assurance Documentation, Appendix I.6-A - Version of Appendix I-6 Available for Public Review, Figures tab, Figures Table of Contents, and Figures I-1 and I-2.

LETTER FROM CHIEF FINANCIAL OFFICER

(To demonstrate liability coverage and/or to demonstrate
both liability coverage and assurance of closure
and/or post-closure care.)

Director
Illinois Environmental Protection Agency
1021 North Grand Avenue East
Post Office Box 19276
Springfield, Illinois 62794-9276

Dear Sir or Madam:

I am the chief financial officer of CITGO Petroleum Corporation
(1)

This letter is in support of the use of the financial test to demonstrate financial responsibility for liability
coverage and closure and/or post closure care as specified in Subpart H of 35 Ill. Adm. Code Parts 724
(2)
and 725.

The firm identified above is the owner or operator of the following facilities for which liability coverage for
sudden or non-sudden accidental occurrences is being demonstrated through
(3)
the financial test specified in Subpart H of 35 Ill. Adm. Code 724 and 725.

Please attach a separate page if more space is needed for all facilities.

USEPA I.D. No. ILD 041550567
(4)

Name Lemont Refinery
(5)

Address 135th Street and New Avenue
(6)

City Lemont, IL 60439-3659
(7)

The firm identified above guarantees, through the guarantee specified in Subpart H of 35 Ill. Adm. Code Parts
724 and 725, liability coverage for sudden and non-sudden accidental
(8)
occurrences at the following facilities owned or operated by the following.

USEPA I.D. No. ILD 041550567
(4)

Name Lemont Refinery
(5)

Address 135th Street and New Avenue
(6)

City Lemont, IL 60439-3659
(7)

USEPA I.D. No. _____
(4)

Name _____
(5)

Address _____
(6)

City _____
(7)

The firm identified above is the direct or higher tier parent corporation
of the owner or operator

1. The firm identified above owns or operates the following facilities for which financial assurance for closure or post-closure care or liability coverage is demonstrated through the financial test specified in Subpart H of 35 Ill. Adm. Code 724 and 725. The current closure and/or post-closure cost estimates covered by the test are shown for each facility.

(Please attach a separate page if more space is needed.)

USEPA I.D. No.	Closure Amount	Post-Closure Amount	Closure and Post-Closure Amount
<u>ILD 041550567</u> (4)			
Name <u>Lemont Refinery</u> (5)			
Address <u>135th Street and New Avenue</u> (6)	<u>\$ 2,908,570</u>	<u>\$ 2,766,055</u> (10)	<u>\$ 5,674,625</u>
City <u>Lemont, IL 60439-3659</u> (7)			

USEPA I.D. No.	Closure Amount	Post-Closure Amount	Closure and Post-Closure Amount
<u>ILD 041550567</u> (4)			
Name <u>Lemont Refinery</u> (5)			
Address <u>135th Street and New Avenue</u> (6)			
City <u>Lemont, IL 60439-3659</u> (7)			
		<u>Corrective Action</u>	
		<u>\$ 2,313,274</u> (10)	

2. The firm identified above guarantees, through the corporate guarantee specified in Subpart H of 35 Ill. Adm. Code Parts 724 and 725, the closure and/or post-closure care of the following facilities owned or operated by its subsidiaries. The current cost estimates for closure or post-closure care so guaranteed are shown for each facility.

(Please attach a separate page if more space is needed.)

USEPA I.D. No.	Closure Amount	Post-Closure Amount	Closure and Post-Closure Amount
<u></u> (4)			
Name <u></u> (5)			
Address <u></u> (6)			
City <u></u> (7)			

USEPA I.D. No.	Closure Amount	Post-Closure Amount	Closure and Post-Closure Amount
<u></u> (4)			
Name <u></u> (5)			
Address <u></u> (6)			
City <u></u> (7)			

3. In states where IEPA is not administering the financial requirements of Subpart H of 40 CFR Parts 264 and 265, this firm is demonstrating financial assurance for the closure or post-closure care of the following facilities through the use of a test equivalent or substantially equivalent to the financial test specified in Subpart H of 40 CFR Parts 264 and 265. The current closure or post-closure cost estimates covered by such a test are shown for each facility.

(Please attach a separate page if more space is needed.)

USEPA I.D. No.	Closure Amount	Post-Closure Amount	Closure and Post-Closure Amount
<u>LAD 008080350</u> (4)			
Name <u>CITGO Petroleum Corporation Refinery Complex</u> (5)			
Address <u>Box 1562</u> (6)	<u>\$35,798,458</u>	<u>\$4,202,231</u> (10)	<u>\$40,000,689</u>
City <u>Lake Charles, LA 70602</u> (7)			

USEPA I.D. No.	Closure Amount	Post-Closure Amount	Closure and Post-Closure Amount
<u>TXD 051161990</u> (4)			
Name <u>CITGO Refining and Chemical Company, L.P.</u> (5)			
Address <u>1801 Nueces Bay Boulevard</u> (6)	<u>\$673,308</u>	<u>\$3,179,057</u> (10)	<u>\$3,852,365</u>
City <u>Corpus Christi, TX 78407</u> (7)			

4. The firm identified above owns or operates the following hazardous waste management facilities for which financial assurances for closure or, if a disposal facility, post-closure care, is not demonstrated either to IEPA, USEPA or a State through the financial test or any other financial assurance mechanisms specified in Subpart H of 40 CFR Parts 264 and 265 or equivalent or substantially equivalent state mechanisms. The current closure or post-closure cost estimates not covered by such financial assurance are shown for each facility.

(Please attach a separate page if more space is needed.)

USEPA I.D. No.	Closure Amount	Post-Closure Amount	Closure and Post-Closure Amount
_____ (4)			
Name _____ (5)			
Address _____ (6)			
City _____ (7)			

USEPA I.D. No.	Closure Amount	Post-Closure Amount	Closure and Post-Closure Amount
_____ (4)			
Name _____ (5)			
Address _____ (6)			
City _____ (7)			

5. This firm is the owner or operator of the following UIC facilities for which financial assurance for plugging and abandonment is required under Part 40 CFR 144. The current closure estimates as required by 40 CFR 144.62 or Subpart A of Illinois Administrative Code 704 are shown for each facility.

(Please attach a separate page if more space is needed.)

USEPA I.D. No. _____ (4)	Plugging and Abandonment Amount
Name _____ (5)	
Address _____ (6)	_____ (11)
City _____ (7)	

USEPA I.D. No. _____ (4)	Plugging and Abandonment Amount
Name _____ (5)	
Address _____ (6)	_____ (11)
City _____ (7)	

This firm is not required⁽¹²⁾ to file a Form 10K with the Security and Exchange Commission (SEC) for the latest fiscal year.

The fiscal year of this firm ends on December 31⁽¹³⁾. The figures for the following items marked with an asterisk are derived from this firm's independently audited, year-end financial statements for the latest completed fiscal year, ended 2006⁽¹⁴⁾.

**APPENDIX I.6-A — VERSION OF APPENDIX I.6
AVAILABLE FOR PUBLIC REVIEW**

APPENDIX I.6—FINANCIAL ASSURANCE DOCUMENTATION

Public Record Claimed Exempt

